

RECEIVED

NOV 14 2008

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

ANNUAL GROUNDWATER EXTRACTION SYSTEM PERFORMANCE REPORT HELENA, MONTANA

Prepared For:

**CITY OF HELENA
HELENA, MONTANA**



Hydrometrics, Inc.
consulting scientists and engineers

NOVEMBER 2008



November 13, 2008

Mary Louise Hendrickson
Environmental Science Specialist
Montana Department of Environmental Quality
Solid Waste Regulatory Program
P.O. Box 200901
Helena, MT 59620-0901

Dear Mary Louise,

On behalf of the City of Helena, I am submitting the annual groundwater extraction system performance report for the City of Helena Landfill, plant ID 049 0014. The groundwater extraction system was installed in the spring of 2000 and is located just north of the landfill boundary. This treatment system includes three extraction wells (HL-99-1, HL-99-2, and HL-99-3) to intercept tetrachloroethene (PCE) impacted groundwater migrating downgradient of the landfill. The extracted groundwater is pumped through aeration nozzles into two lined ponds located on Bill Roberts Golf Course. In accordance with regulations, the treated water is sampled monthly to ensure the treatment goals have been met prior to land application on the golf course.

The groundwater extraction system operated May 1, 2008 through October 15, 2008 for a total of 165 days. Several tables showing all the data collected at the groundwater extraction system over the last year and calculation performed with that data are included as Attachment A to this report. A summary of the operational data is shown in Table 1. With a combined average flow of 65.9 gpm from the three extraction wells, a total of 14.5 million gallons of groundwater were extracted and treated this year.

Table 1. Summary of Operational Data

Extraction Well	Days Operated	Average Flowrate (gpm)	Total Volume Removed (gal)
HL-99-1	165.1	7.2	1,720,112
HL-99-2	130.2*	22.1	4,144,667
HL-99-3	165.1	36.5	8,684,021
Total	165.1	65.9	14,548,800

*This well was unintentionally turned off during August
and resumed operation in September.

Groundwater samples are collected in March and June from each of the extraction wells. The field book notes, sampling forms and lab reports for this sampling were included in the March and June data validation reports you have already received. Table 2 includes a summary of the sample results. Only those parameters that were detected in at least one extraction well during the March or June 2008 sampling events were included. Assuming a conservative treatment level of 0.0005 mg/L for each compound and the total volume pumped for each well, the estimated mass of volatile organic compounds (VOCs) removed from each well was calculated. These values are also shown in Table 2.

Table 2. Extraction Well Sample Results and Mass of VOCs Removed

VOC	HL-99-1		HL-99-2		HL-99-3		Total	
	Average Conc. (mg/L)	Mass Removed (kg)	Average Conc. (mg/L)	Mass Removed (kg)	Average Conc. (mg/L)	Mass Removed (kg)	Average Conc. (mg/L)	Mass Removed (kg)
1,1-Dichloroethane	<0.001	0.0000	0.0021	0.0251	0.0029	0.0772	0.0020	0.1023
Chloroform	0.0031	0.0166	0.0021	0.0243	0.0025	0.0641	0.0025	0.1050
Cis-1,2-dichloroethane	0.0019	0.0088	<0.001	0.0000	<0.001	0.0000	0.0013	0.0088
Dichlorodifluoromethane	<0.001	0.0000	0.0022	0.0259	0.0017	0.0394	0.0016	0.0653
Tetrachloroethene	0.0042	0.0241	0.0051	0.0714	0.0072	0.2186	0.0055	0.3140
Trichloroethene	<0.001	0.0000	0.0013	0.0126	0.0015	0.0312	0.0013	0.0438
Trichlorofluoromethane	<0.001	0.0000	0.0010	0.0078	<0.001	0.0000	0.0010	0.0078
Total Mass Removed		0.049		0.159		0.431		0.639

The sample results from the extraction wells indicate that the average PCE concentration being extracted from the system is 0.0055 mg/L. A total of 0.64 kg of VOC's were removed by the groundwater extraction system during the 2007 irrigation season.

During system operation, surface water samples were collected on a monthly basis from the east golf course pond and from the golf course sprinkler system. These water quality samples ensure that treatment goals are met. The field book notes, sampling forms and lab reports for each of these sampling events has been included as Attachment B to this report. An October sampling event was not completed since Golf Course personnel shut down the sprinkler system prior to notifying Hydrometrics' personnel to winterize the extraction system. The results from the monthly sampling events indicate that all VOCs were below the detection limit of 0.0005 mg/L prior to land application.

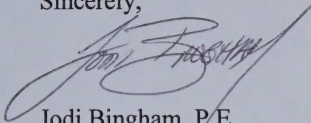
Mary Louise Hendrickson

November 13, 2008

Page 3

If you have any questions concerning this data or need any additional information to complete your files, please do not hesitate to call me at 443-4150, Ext. 172.

Sincerely,



Jodi Bingham, P.E.

Environmental Engineer/Chemist

c: John Rundquist, City of Helena Public Works Director (w/enclosure)
Ben Sautter, City of Helena Solid Waste Supervisor (w/enclosure)
Mike Wignot, Hydrometrics, Inc. (w/enclosure)

ATTACHMENT A

**DATA ANALYSIS FOR THE
GROUNDWATER EXTRACTION SYSTEM**

Operational Data:

Date	Time	Hour Meter Reading	Totalizer 1 Reading	Totalizer 2 Reading	Instantaneous Flowmeter Reading	Hours Operated		Volume Extracted		Flowrate	
						Calculated from date	Calculated from hour meter	Calculated from Totalizer 2 Readings	Calculated from Avg. Flow and Hour Meter Readings	Average Flowmeter Reading	Calculated from Totalizer and Hour meter
5/1/2008	10:40	0.0	0	0	7.5					7.5	0
5/14/2008	14:45	336.8	158,394	158,396	10.8						
	last period to date					316.1	336.8	158,396	184,903	9.15	7.8
						316.1	336.8	158,396	184,903	9.2	7.8
6/19/2008	9:30	1129.6	383,943	383,945	6.7						
	last period to date					858.8	792.8	225,549	416,220	8.75	4.7
						1174.8	1129.6	383,945	601,123	8.9	5.7
7/2/2008	12:00	1443.2	549,657	549,659	8.4						
	last period to date					314.5	313.6	165,714	142,061	7.55	8.8
						1489.3	1443.2	549,659	743,184	8.6	6.3
7/25/2008	12:00	1996	687,111 (est.)	865,249 (est.)	7.2 (est.)	*flowmeter impeller stuck - est. flow based on previous and next months' data					
	last period to date					552.0	552.8	315,590	258,545	7.80	9.5
						2041.3	1996.0	865,249	1,001,729	8.4	7.2
8/29/2008	9:30	2834.0	895,657	344,067	5.98						
	last period to date		346,000	794,407		837.5	838.0	478,817	331,094	6.59	9.5
						2878.8	2834.0	895,657	1,332,822	7.8	5.3
9/18/2008	14:15	3318.1	58,375	506,789	5.59						
	last period to date					484.7	484.1	162,722	168,031	5.79	5.6
						3363.6	3318.1	1,058,374	1,500,853	7.5	5.3
10/15/2008	11:00	3962.6	272,046	720,460	5.75						
	to date					644.8	644.5	213,671	219,259	5.67	5.5
						4008.3	3962.6	1,272,045	1,720,112	7.2	5.4
Average/Total for 2008 Operating Season						4008.3	3962.6		1,720,112	7.2	

VOC Sample Data (mg/L):

VOC	Cleanup Level	3/31/2008	6/18/2008	Avg. Conc.	Total Mass (g)
1,1-Dichloroethane	0.0005	<0.001	<0.001	<0.001	0.0033
Chloroethane	0.0005	<0.001	<0.001	<0.001	0.0033
Chloroform	0.0005	0.0028	0.0033	0.0031	0.0166
Cis-1,2-dichloroethane	0.0005	0.0017	0.002	0.0019	0.0088
Dichlorodifluoromethane	0.0005	<0.001	<0.001	<0.001	0.0033
Tetrachloroethene	0.0005	0.0045	0.0039	0.0042	0.0241
Trichloroethene	0.0005	<0.001	<0.001	<0.001	0.0033
Trichlorofluoromethane	0.0005	<0.001	<0.001	<0.001	0.0033
Total					0.0658

Operational Data:

		Hours Operated				Volume Extracted		Flowrate			
Date	Time	Hour Meter Reading	Totalizer 1 Reading	Totalizer 2 Reading	Instantaneous	Calculated from date	Calculated from hour meter	Calculated from Totalizer 2 Readings	Calculated from Flowmeter and Hour Meter Readings	Average Flowmeter Reading	Calculated from Totalizer and Hour meter
					Flowmeter Reading						
5/1/2008	10:45	0.0	0	0	24.0	0	0				
5/14/2008	14:50	336.7	155,038	553,799	26.3						
	last period to date		155,038	553,799		316.1	336.7	553,799	531,313	25.15	27.4
						316.1	336.7	553,799	531,313	25.2	27.4
6/19/2008	9:00	1129.0	342,466	741,229	23.2						
	last period to date		187,428	187,430		858.2	792.3	1,187,429	1,176,566	24.75	25.0
						1174.3	1129.0	1,741,228	1,659,630	24.5	25.7
7/2/2008	12:00	1443.0	572,923	971,681	22.4 (est.)						
	last period to date		230,457	230,452		315.0	314.0	230,452	429,081	22.775	12.2
						1489.3	1443.0	1,971,680	2,074,673	24.0	22.8
7/25/2008	12:00	1995.8	572,923	971,681	21.9 (est.)	*flowmeter impeller stuck - est. flow based on previous and next months' data					
	last period to date					552.0	552.8	999,999	734,257	22.14	30.1
						2041.3	1995.8	2,971,680	2,820,664	23.6	24.8
8/29/2008	9:45	1995.8	572,960	971,724	21.5	*well was turned off					
	last period to date					837.8	0.0	43	0	21.71	0.0
						2041.3	1995.8	2,971,723	2,820,664	23.2	24.8
9/18/2008	14:00	2479.9	84,070	482,822	19.8						
	last period to date		511,109	511,097		484.3	484.1	511,097	599,800	20.65	17.6
						2525.5	2479.9	3,482,821	3,381,344	22.7	23.4
10/15/2008	10:45	3124.5	745,907	144,668	19.2						
	last period to date					644.7	644.6	661,845	754,182	19.50	17.1
						3523.7	3124.5	4,144,667	4,177,652	22.3	22.1
Average/Total for 2008 Operating Season						3523.7	3124.5	4,144,667	4,177,652	22.3	22.1

VOC Sample Data (mg/L):

VOC	Cleanup Level	3/31/2008	6/18/2008	Avg. Conc.	Total Mass (g)
1,1-Dichloroethane	0.0005	0.003	0.0012	0.0021	0.0251
Chloroethane	0.0005	<0.001	<0.001	<0.001	0.0078
Chloroform	0.0005	0.0025	0.0016	0.0021	0.0243
Cis-1,2-dichloroethane	0.0005	<0.001	<0.001	<0.001	0.0078
Dichlorodifluoromethane	0.0005	0.0033	<0.001	0.0022	0.0259
Tetrachloroethene	0.0005	0.0068	0.0033	0.0051	0.0714
Trichloroethene	0.0005	0.0016	<0.001	0.0013	0.0126
Trichlorofluoromethane	0.0005	0.001	<0.001	0.0010	0.0078
Total					0.1828

HL-99-3

Operational Data:

Operational Data:						Hours Operated		Volume Extracted		Flowrate	
Date	Time	Hour Meter Reading	Totalizer 1 Reading	Totalizer 2 Reading	Instantaneous Flowmeter Reading	Calculated from date	Calculated from hour meter	Calculated from Totalizer 2 Readings	Calculated from Flowmeter and Hour Meter Readings	Average Flowmeter Reading	Calculated from Totalizer and Hour meter
5/1/2008	10:50	0.0	0	0	36.0	0	0			36.0	0
5/14/2008	14:55	336.1	693,972	719,475	36.4						
	last period to date					316.1	336.1	719,475	734,042	36.2	35.7
						316.1	336.1	719,475	734,042	36.2	35.7
6/19/2008	8:30	1128.1	500,756	526,263	37.8						
	last period to date					857.6	792.0	1,806,787	1,762,992	37.1	38.0
						1173.7	1128.1	2,526,262	2,486,332	36.7	37.3
7/2/2008	12:00	1442.4	149,435	174,937	34.5						
	last period to date					315.5	314.3	648,673	681,717	36.15	34.4
						1489.2	1442.4	3,174,936	3,130,729	36.2	36.7
7/25/2008	12:00	1995.2	424,964	399,485	37.4						
	last period to date					552.0	552.8	1,224,547	1,192,390	35.95	36.9
						2041.2	1995.2	4,399,484	4,359,911	36.4	36.8
8/29/2008	10:00	2833.1	253,682 (est.)	228,203 (est.)	35.4 (est.)	*flowmeter batteries bad - est. flow and volume based on previous and next months' data					
	last period to date					838.0	837.9	1,828,717	1,828,717	36.38	36.4
						2879.2	2833.1	6,228,202	6,160,576	36.2	36.6
9/18/2008	13:45	3317.2	387,352	387,360	33.3						
	last period to date					483.8	484.1	1,159,156	997,004	34.33	39.9
						3362.9	3317.2	7,387,359	7,129,611	35.8	37.1
10/15/2008	10:30	3962.0	684,038	684,022	33.0						
	last period to date					644.8	644.8	1,296,661	1,282,507	33.15	33.5
						3523.9	3962.0	8,684,021	8,431,631	35.5	36.5
Average/Total for 2007 Operating Season						3523.9	3962.0	8,684,021	8,431,631	35.5	36.5

VOC Sample Data (mg/L):

VOC	Cleanup Level	3/31/2008	6/18/2008	Avg. Conc.	Total Mass (g)
1,1-Dichloroethane	0.0005	0.0031	0.0026	0.0029	0.0772
Chloroethane	0.0005	<0.001	<0.001	<0.001	0.0164
Chloroform	0.0005	0.0026	0.0023	0.0025	0.0641
Cis-1,2-dichloroethane	0.0005	<0.001	<0.001	<0.001	0.0164
Dichlorodifluoromethane	0.0005	0.0017	0.0017	0.0017	0.0394
Tetrachloroethene	0.0005	0.0083	0.006	0.0072	0.2186
Trichloroethene	0.0005	0.0017	0.0012	0.0015	0.0312
Trichlorofluoromethane	0.0005	<0.001	<0.001	<0.001	0.0164
Total					0.4799

ATTACHMENT B

**FIELD BOOK NOTES, SAMPLING FORMS AND
LAB REPORTS FOR SURFACE WATER SAMPLES**

<u>Site</u>	<u>Code</u>	<u>Date</u>	<u>Time</u>	<u>Bottles/Pres/Anlys</u>	<u>Comments</u>
<u>Pond</u>	CHHL- 0805- 100	5/14/08	14:15	2/40/HCL/VOC	Sampled from Pond where Valve Box and piping enter Pond.
<u>Sprinklers</u>	CHHL- 0805- 101	↓	14:30	↓	Sampled from Sprinkler 50' W of Building on West side at Pond.

Weather

Windy, Overcast, 50°C

Reading

Re Sampled on		6/5/08 12:40			<u>Hr</u>	<u>Flow</u>	<u>Totalizer</u>	
Pond	CHHL-	↓		↓	99-3	336.1	36.4	1) 693972
	0805-						2) 719475	
	200				99-2	336.7	26.3	1) 155038
								2) 553799
Sprinkler	CHHL-	↓	12:45	↓	99-1	336.8	10.8	1) 158394
	0805-						2) 158396	
	201							



ANALYTICAL SUMMARY REPORT

June 20, 2008

Hydrometrics Inc
3020 Bozeman Ave
Helena, MT 59601

Workorder No.: H08060095

Project Name: 1273 City of Helena

Energy Laboratories Inc received the following 2 samples from Hydrometrics Inc on 6/5/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H08060095-001	CHHL-0805-200	06/05/08 12:40	06/05/08	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I
H08060095-002	CHHL-0805-201	06/05/08 12:45	06/05/08	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____

CASE NARRATIVE

The following Case Narrative contains exceptions or comments pertaining to the analysis of samples submitted by Hydrometrics Inc on 6/5/2008 1:14:00 PM. These samples were assigned ELI Workorder Number H08060095.

No charge for analysis due to re-sample. Wi



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08060095-001
Client Sample ID: CHHL-0805-200

Pond

Report Date: 06/17/08
Collection Date: 06/05/08 12:40
Date Received: 06/05/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/08/08 19:13 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	06/08/08 19:13 / jdh
Benzene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/08/08 19:13 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Chloroform	0.18	ug/L	J	0.50		SW8260B	06/08/08 19:13 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	06/08/08 19:13 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/08/08 19:13 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/08/08 19:13 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	06/08/08 19:13 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	06/08/08 19:13 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/08/08 19:13 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/08/08 19:13 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Styrene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
Tetrachloroethene	0.31	ug/L	J	0.50		SW8260B	06/08/08 19:13 / jdh
Toluene	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:13 / jdh

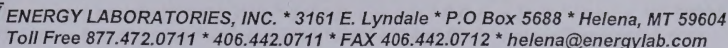
Report RL - Analyte reporting limit.

MCL - Maximum contaminant level.

Definitions: QCL - Quality control limit.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



Report Date: 06/17/08
Collection Date: 06/05/08 12:40
DateReceived: 06/05/08
Matrix: Aqueous

Report	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
Definitions:	QCL - Quality control limit.	ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08060095-002
Client Sample ID: CHHL-0805-201

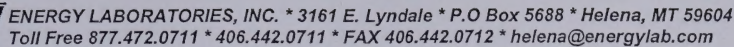
Sprinkler

Report Date: 06/17/08
Collection Date: 06/05/08 12:45
Date Received: 06/05/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/08/08 19:42 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	06/08/08 19:42 / jdh
Benzene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/08/08 19:42 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Chloroform	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	06/08/08 19:42 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/08/08 19:42 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/08/08 19:42 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	06/08/08 19:42 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	06/08/08 19:42 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/08/08 19:42 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/08/08 19:42 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Styrene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Tetrachloroethene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
Toluene	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/08/08 19:42 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



Report Date: 06/17/08
Collection Date: 06/05/08 12:45
DateReceived: 06/05/08
Matrix: Aqueous

Report	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
Definitions:	QCL - Quality control limit.	ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B			Analytical Run: 1SATURN_080608B						
Sample ID: CCV060808A	Continuing Calibration Verification Standard								06/08/08 10:52
Acetone	47.2	ug/L	20	94	70	130			
Acrylonitrile	48.0	ug/L	20	96	70	130			
Benzene	4.96	ug/L	1.0	99	70	130			
Bromochloromethane	4.48	ug/L	1.0	90	70	130			
Bromodichloromethane	4.48	ug/L	1.0	90	70	130			
Bromoform	4.88	ug/L	1.0	98	70	130			
Bromomethane	4.04	ug/L	1.0	81	70	130			
Carbon disulfide	5.08	ug/L	1.0	102	70	130			
Carbon tetrachloride	4.64	ug/L	1.0	93	70	130			
Chlorobenzene	4.36	ug/L	1.0	87	70	130			
Chlorodibromomethane	4.76	ug/L	1.0	95	70	130			
Chloroethane	4.72	ug/L	1.0	94	70	130			
Chloroform	4.32	ug/L	1.0	86	80	120			
Chloromethane	5.52	ug/L	1.0	110	70	130			
1,2-Dibromo-3-chloropropane	4.16	ug/L	1.0	83	70	130			
1,2-Dibromoethane	5.76	ug/L	1.0	115	70	130			
Dibromomethane	4.48	ug/L	1.0	90	70	130			
1,2-Dichlorobenzene	4.92	ug/L	1.0	98	70	130			
1,4-Dichlorobenzene	4.80	ug/L	1.0	96	70	130			
trans-1,4-Dichloro-2-butene	4.36	ug/L	1.0	87	70	130			
Dichlorodifluoromethane	4.92	ug/L	1.0	98	70	130			
1,1-Dichloroethane	4.64	ug/L	1.0	93	70	130			
1,2-Dichloroethane	4.48	ug/L	1.0	90	70	130			
1,1-Dichloroethene	4.56	ug/L	1.0	91	80	120			
cis-1,2-Dichloroethene	4.40	ug/L	1.0	88	70	130			
trans-1,2-Dichloroethene	4.72	ug/L	1.0	94	70	130			
1,2-Dichloropropane	5.12	ug/L	1.0	102	80	120			
cis-1,3-Dichloropropene	4.72	ug/L	1.0	94	70	130			
trans-1,3-Dichloropropene	4.84	ug/L	1.0	97	70	130			
Ethylbenzene	4.76	ug/L	1.0	95	80	120			
2-Hexanone	48.4	ug/L	20	97	70	130			
Iodomethane	4.48	ug/L	1.0	90	70	130			
Methyl ethyl ketone	44.8	ug/L	20	90	70	130			
Methyl isobutyl ketone	44.0	ug/L	20	88	70	130			
Methylene chloride	4.32	ug/L	1.0	86	70	130			
Styrene	4.64	ug/L	1.0	93	70	130			
1,1,1,2-Tetrachloroethane	4.68	ug/L	1.0	94	70	130			
1,1,2,2-Tetrachloroethane	4.60	ug/L	1.0	92	70	130			
Tetrachloroethene	4.96	ug/L	1.0	99	70	130			
Toluene	4.76	ug/L	1.0	95	80	120			
1,1,1-Trichloroethane	4.64	ug/L	1.0	93	70	130			
1,1,2-Trichloroethane	4.88	ug/L	1.0	98	70	130			
Trichloroethene	5.00	ug/L	1.0	100	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B			Analytical Run: 1SATURN_080608B						
Sample ID: CCV060808A	Continuing Calibration Verification Standard								06/08/08 10:52
Trichlorofluoromethane	4.80	ug/L	1.0	96	70	130			
1,2,3-Trichloropropane	4.48	ug/L	1.0	90	70	130			
Vinyl acetate	3.84	ug/L	1.0	77	70	130			
Vinyl chloride	4.48	ug/L	1.0	90	80	120			
m+p-Xylenes	8.64	ug/L	1.0	86	70	130			
o-Xylene	4.44	ug/L	1.0	89	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	87	70	130			
Surr: Dibromofluoromethane			1.0	90	70	130			
Surr: p-Bromofluorobenzene			1.0	93	70	130			
Surr: Toluene-d8			1.0	99	70	130			
Sample ID: CCV060908A	Continuing Calibration Verification Standard								06/09/08 08:58
Bromomethane	3.79	ug/L	1.0	76	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	91	70	130			
Surr: Dibromofluoromethane			1.0	93	70	130			
Surr: p-Bromofluorobenzene			1.0	92	70	130			
Surr: Toluene-d8			1.0	102	70	130			
Sample ID: CCV060908B	Continuing Calibration Verification Standard								06/09/08 09:44
Acetone	48.8	ug/L	20	98	70	130			
Acrylonitrile	42.4	ug/L	20	85	70	130			
Benzene	5.68	ug/L	1.0	114	70	130			
Bromochloromethane	4.84	ug/L	1.0	97	70	130			
Bromodichloromethane	5.04	ug/L	1.0	101	70	130			
Bromoform	4.56	ug/L	1.0	91	70	130			
Carbon disulfide	5.72	ug/L	1.0	114	70	130			
Carbon tetrachloride	5.32	ug/L	1.0	106	70	130			
Chlorobenzene	4.88	ug/L	1.0	98	70	130			
Chlorodibromomethane	4.88	ug/L	1.0	98	70	130			
Chloroethane	4.84	ug/L	1.0	97	70	130			
Chloroform	4.84	ug/L	1.0	97	80	120			
Chloromethane	5.24	ug/L	1.0	105	70	130			
1,2-Dibromo-3-chloropropane	4.28	ug/L	1.0	86	70	130			
1,2-Dibromoethane	5.48	ug/L	1.0	110	70	130			
Dibromomethane	4.56	ug/L	1.0	91	70	130			
1,2-Dichlorobenzene	4.96	ug/L	1.0	99	70	130			
1,4-Dichlorobenzene	4.96	ug/L	1.0	99	70	130			
trans-1,4-Dichloro-2-butene	4.12	ug/L	1.0	82	70	130			
Dichlorodifluoromethane	5.00	ug/L	1.0	100	70	130			
1,1-Dichloroethane	5.32	ug/L	1.0	106	70	130			
1,2-Dichloroethane	4.84	ug/L	1.0	97	70	130			
1,1-Dichloroethene	5.04	ug/L	1.0	101	80	120			
cis-1,2-Dichloroethene	5.00	ug/L	1.0	100	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Analytical Run: 1SATURN_080608B		
Sample ID: CCV060908B	Continuing Calibration Verification Standard							06/09/08 09:44	
trans-1,2-Dichloroethene	5.52	ug/L	1.0	110	70	130			
1,2-Dichloropropane	5.88	ug/L	1.0	118	80	120			
cis-1,3-Dichloropropene	5.28	ug/L	1.0	106	70	130			
trans-1,3-Dichloropropene	5.24	ug/L	1.0	105	70	130			
Ethylbenzene	5.24	ug/L	1.0	105	80	120			
2-Hexanone	46.8	ug/L	20	94	70	130			
Iodomethane	4.84	ug/L	1.0	97	70	130			
Methyl ethyl ketone	44.8	ug/L	20	90	70	130			
Methyl isobutyl ketone	47.2	ug/L	20	94	70	130			
Methylene chloride	4.56	ug/L	1.0	91	70	130			
Styrene	5.32	ug/L	1.0	106	70	130			
1,1,1,2-Tetrachloroethane	5.32	ug/L	1.0	106	70	130			
1,1,2,2-Tetrachloroethane	4.64	ug/L	1.0	93	70	130			
Tetrachloroethene	5.28	ug/L	1.0	106	70	130			
Toluene	5.28	ug/L	1.0	106	80	120			
1,1,1-Trichloroethane	5.24	ug/L	1.0	105	70	130			
1,1,2-Trichloroethane	5.36	ug/L	1.0	107	70	130			
Trichloroethene	5.52	ug/L	1.0	110	70	130			
Trichlorofluoromethane	5.16	ug/L	1.0	103	70	130			
1,2,3-Trichloropropane	4.52	ug/L	1.0	90	70	130			
Vinyl acetate	4.08	ug/L	1.0	82	70	130			
Vinyl chloride	4.72	ug/L	1.0	94	80	120			
m+p-Xylenes	9.40	ug/L	1.0	94	70	130			
o-Xylene	4.88	ug/L	1.0	98	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	95	70	130			
Surr: Dibromofluoromethane			1.0	96	70	130			
Surr: p-Bromofluorobenzene			1.0	92	70	130			
Surr: Toluene-d8			1.0	101	70	130			

Method: SW8260B

Batch: R45673

Sample ID: LCS060808A

Laboratory Control Sample

Run: 1SATURN_080608B

06/08/08 11:31

Acetone	51.6	ug/L	20	103	70	130
Acrylonitrile	48.8	ug/L	20	98	70	130
Benzene	5.08	ug/L	1.0	102	70	130
Bromochloromethane	4.64	ug/L	1.0	93	70	130
Bromodichloromethane	4.48	ug/L	1.0	90	70	130
Bromoform	5.32	ug/L	1.0	106	70	130
Bromomethane	4.32	ug/L	1.0	86	70	130
Carbon disulfide	5.36	ug/L	1.0	107	70	130
Carbon tetrachloride	4.92	ug/L	1.0	98	70	130
Chlorobenzene	4.56	ug/L	1.0	91	70	130
Chlorodibromomethane	5.04	ug/L	1.0	101	70	130
Chloroethane	4.80	ug/L	1.0	96	70	130

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R45673		
Sample ID: LCS060808A	Laboratory Control Sample				Run: 1SATURN_080608B		06/08/08 11:31		
Chloroform	4.60	ug/L	1.0	92	70	130			
Chloromethane	5.76	ug/L	1.0	115	70	130			
1,2-Dibromo-3-chloropropane	4.64	ug/L	1.0	93	70	130			
1,2-Dibromoethane	6.00	ug/L	1.0	120	70	130			
Dibromomethane	4.52	ug/L	1.0	90	70	130			
1,2-Dichlorobenzene	5.04	ug/L	1.0	101	70	130			
1,4-Dichlorobenzene	5.16	ug/L	1.0	103	70	130			
trans-1,4-Dichloro-2-butene	4.52	ug/L	1.0	90	70	130			
Dichlorodifluoromethane	5.24	ug/L	1.0	105	70	130			
1,1-Dichloroethane	4.96	ug/L	1.0	99	70	130			
1,2-Dichloroethane	4.44	ug/L	1.0	89	70	130			
1,1-Dichloroethene	4.84	ug/L	1.0	97	70	130			
cis-1,2-Dichloroethene	4.52	ug/L	1.0	90	70	130			
trans-1,2-Dichloroethene	4.80	ug/L	1.0	96	70	130			
1,2-Dichloropropane	5.04	ug/L	1.0	101	70	130			
cis-1,3-Dichloropropene	4.84	ug/L	1.0	97	70	130			
trans-1,3-Dichloropropene	4.92	ug/L	1.0	98	70	130			
Ethylbenzene	4.64	ug/L	1.0	93	70	130			
2-Hexanone	48.8	ug/L	20	98	70	130			
Iodomethane	4.36	ug/L	1.0	87	70	130			
Methyl ethyl ketone	48.4	ug/L	20	97	70	130			
Methyl isobutyl ketone	45.6	ug/L	20	91	70	130			
Methylene chloride	4.44	ug/L	1.0	89	70	130			
Styrene	4.64	ug/L	1.0	93	70	130			
1,1,1,2-Tetrachloroethane	4.72	ug/L	1.0	94	70	130			
1,1,2,2-Tetrachloroethane	4.64	ug/L	1.0	93	70	130			
Tetrachloroethene	4.80	ug/L	1.0	96	70	130			
Toluene	4.64	ug/L	1.0	93	70	130			
1,1,1-Trichloroethane	4.76	ug/L	1.0	95	70	130			
1,1,2-Trichloroethane	4.72	ug/L	1.0	94	70	130			
Trichloroethene	4.96	ug/L	1.0	99	70	130			
Trichlorofluoromethane	5.20	ug/L	1.0	104	70	130			
1,2,3-Trichloropropane	4.40	ug/L	1.0	88	70	130			
Vinyl acetate	4.28	ug/L	1.0	86	70	130			
Vinyl chloride	4.64	ug/L	1.0	93	70	130			
m+p-Xylenes	8.64	ug/L	1.0	86	70	130			
o-Xylene	4.56	ug/L	1.0	91	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	88	70	130			
Surr: Dibromofluoromethane			1.0	93	70	130			
Surr: p-Bromofluorobenzene			1.0	94	70	130			
Surr: Toluene-d8			1.0	95	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R45673
Sample ID: MBLK060808A	Method Blank		Run: 1SATURN_080608B					06/08/08 14:38	
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	1.0						
Bromochloromethane	ND	ug/L	1.0						
Bromodichloromethane	ND	ug/L	1.0						
Bromoform	ND	ug/L	1.0						
Bromomethane	ND	ug/L	1.0						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	1.0						
Chlorobenzene	ND	ug/L	1.0						
Chlorodibromomethane	ND	ug/L	1.0						
Chloroethane	ND	ug/L	1.0						
Chloroform	ND	ug/L	1.0						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	1.0						
Dibromomethane	ND	ug/L	1.0						
1,2-Dichlorobenzene	ND	ug/L	1.0						
1,4-Dichlorobenzene	ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	1.0						
1,2-Dichloroethane	ND	ug/L	1.0						
1,1-Dichloroethene	ND	ug/L	1.0						
cis-1,2-Dichloroethene	ND	ug/L	1.0						
trans-1,2-Dichloroethene	ND	ug/L	1.0						
1,2-Dichloropropane	ND	ug/L	1.0						
cis-1,3-Dichloropropene	ND	ug/L	1.0						
trans-1,3-Dichloropropene	ND	ug/L	1.0						
Ethylbenzene	ND	ug/L	1.0						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	1.0						
Styrene	ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0						
Tetrachloroethene	ND	ug/L	1.0						
Toluene	ND	ug/L	1.0						
1,1,1-Trichloroethane	ND	ug/L	1.0						
1,1,2-Trichloroethane	ND	ug/L	1.0						
Trichloroethene	ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R45673		
Sample ID: MBLK060808A	Method Blank		Run: 1SATURN_080608B				06/08/08 14:38		
Trichlorofluoromethane	ND	ug/L	1.0						
1,2,3-Trichloropropane	ND	ug/L	1.0						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	1.0						
m+p-Xylenes	ND	ug/L	1.0						
o-Xylene	ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4			1.0	88	70	130			
Surr: Dibromofluoromethane			1.0	90	70	130			
Surr: p-Bromofluorobenzene			1.0	89	70	130			
Surr: Toluene-d8			1.0	89	70	130			
Sample ID: LCS060908A	Laboratory Control Sample		Run: 1SATURN_080608B				06/09/08 10:20		
Acetone	47.2	ug/L	20	94	70	130			
Acrylonitrile	42.4	ug/L	20	85	70	130			
Benzene	6.00	ug/L	1.0	120	70	130			
Bromochloromethane	5.08	ug/L	1.0	102	70	130			
Bromodichloromethane	5.44	ug/L	1.0	109	70	130			
Bromoform	5.16	ug/L	1.0	103	70	130			
Carbon disulfide	5.28	ug/L	1.0	106	70	130			
Carbon tetrachloride	5.60	ug/L	1.0	112	70	130			
Chlorobenzene	5.48	ug/L	1.0	110	70	130			
Chlorodibromomethane	5.76	ug/L	1.0	115	70	130			
Chloroethane	4.08	ug/L	1.0	82	70	130			
Chloroform	5.20	ug/L	1.0	104	70	130			
Chloromethane	4.88	ug/L	1.0	98	70	130			
1,2-Dibromo-3-chloropropane	4.72	ug/L	1.0	94	70	130			
1,2-Dibromoethane	6.36	ug/L	1.0	127	70	130			
Dibromomethane	4.72	ug/L	1.0	94	70	130			
1,2-Dichlorobenzene	5.60	ug/L	1.0	112	70	130			
1,4-Dichlorobenzene	5.64	ug/L	1.0	113	70	130			
trans-1,4-Dichloro-2-butene	3.96	ug/L	1.0	79	70	130			
Dichlorodifluoromethane	4.24	ug/L	1.0	85	70	130			
1,1-Dichloroethane	5.68	ug/L	1.0	114	70	130			
1,2-Dichloroethane	5.04	ug/L	1.0	101	70	130			
1,1-Dichloroethene	5.48	ug/L	1.0	110	70	130			
cis-1,2-Dichloroethene	5.32	ug/L	1.0	106	70	130			
trans-1,2-Dichloroethene	5.88	ug/L	1.0	118	70	130			
1,2-Dichloropropane	5.92	ug/L	1.0	118	70	130			
cis-1,3-Dichloropropene	5.56	ug/L	1.0	111	70	130			
trans-1,3-Dichloropropene	6.28	ug/L	1.0	126	70	130			
Ethylbenzene	5.52	ug/L	1.0	110	70	130			
2-Hexanone	49.2	ug/L	20	98	70	130			
Iodomethane	4.40	ug/L	1.0	88	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R45673		
Sample ID: LCS060908A	Laboratory Control Sample			Run: 1SATURN_080608B			06/09/08 10:20		
Methyl ethyl ketone	43.2	ug/L	20	86	70	130			
Methyl isobutyl ketone	46.4	ug/L	20	93	70	130			
Methylene chloride	4.52	ug/L	1.0	90	70	130			
Styrene	5.68	ug/L	1.0	114	70	130			
1,1,1,2-Tetrachloroethane	5.60	ug/L	1.0	112	70	130			
1,1,2,2-Tetrachloroethane	5.24	ug/L	1.0	105	70	130			
Tetrachloroethene	5.80	ug/L	1.0	116	70	130			
Toluene	5.56	ug/L	1.0	111	70	130			
1,1,1-Trichloroethane	5.68	ug/L	1.0	114	70	130			
1,1,2-Trichloroethane	5.68	ug/L	1.0	114	70	130			
Trichloroethene	5.68	ug/L	1.0	114	70	130			
Trichlorofluoromethane	5.08	ug/L	1.0	102	70	130			
1,2,3-Trichloropropane	4.96	ug/L	1.0	99	70	130			
Vinyl acetate	3.65	ug/L	1.0	73	70	130			
Vinyl chloride	4.28	ug/L	1.0	86	70	130			
m+p-Xylenes	10.8	ug/L	1.0	108	70	130			
o-Xylene	5.36	ug/L	1.0	107	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	90	70	130			
Surr: Dibromofluoromethane			1.0	92	70	130			
Surr: p-Bromofluorobenzene			1.0	91	70	130			
Surr: Toluene-d8			1.0	101	70	130			
Sample ID: LCS060908C	Laboratory Control Sample			Run: 1SATURN_080608B			06/09/08 11:46		
Bromomethane	3.91	ug/L	1.0	78	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	102	70	130			
Surr: Dibromofluoromethane			1.0	98	70	130			
Surr: p-Bromofluorobenzene			1.0	86	70	130			
Surr: Toluene-d8			1.0	102	70	130			
Sample ID: MBLK060908A	Method Blank			Run: 1SATURN_080608B			06/09/08 12:39		
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	1.0						
Bromochloromethane	ND	ug/L	1.0						
Bromodichloromethane	ND	ug/L	1.0						
Bromoform	ND	ug/L	1.0						
Bromomethane	ND	ug/L	1.0						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	1.0						
Chlorobenzene	ND	ug/L	1.0						
Chlorodibromomethane	ND	ug/L	1.0						
Chloroethane	ND	ug/L	1.0						
Chloroform	ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R45673
Sample ID: MBLK060908A	Method Blank								Run: 1SATURN_080608B 06/09/08 12:39
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	1.0						
Dibromomethane	ND	ug/L	1.0						
1,2-Dichlorobenzene	ND	ug/L	1.0						
1,4-Dichlorobenzene	ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	1.0						
1,2-Dichloroethane	ND	ug/L	1.0						
1,1-Dichloroethene	ND	ug/L	1.0						
cis-1,2-Dichloroethene	ND	ug/L	1.0						
trans-1,2-Dichloroethene	ND	ug/L	1.0						
1,2-Dichloropropane	ND	ug/L	1.0						
cis-1,3-Dichloropropene	ND	ug/L	1.0						
trans-1,3-Dichloropropene	ND	ug/L	1.0						
Ethylbenzene	ND	ug/L	1.0						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	1.0						
Styrene	ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0						
Tetrachloroethene	ND	ug/L	1.0						
Toluene	ND	ug/L	1.0						
1,1,1-Trichloroethane	ND	ug/L	1.0						
1,1,2-Trichloroethane	ND	ug/L	1.0						
Trichloroethene	ND	ug/L	1.0						
Trichlorofluoromethane	ND	ug/L	1.0						
1,2,3-Trichloropropane	ND	ug/L	1.0						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	1.0						
m+p-Xylenes	ND	ug/L	1.0						
o-Xylene	ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4			1.0	101	70	130			
Surr: Dibromofluoromethane			1.0	99	70	130			
Surr: p-Bromofluorobenzene			1.0	87	70	130			
Surr: Toluene-d8			1.0	97	70	130			
Sample ID: H08060095-002AMS	Sample Matrix Spike								Run: 1SATURN_080608B 06/09/08 15:39
Acetone	96.0	ug/L	40	96	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R45673		
Sample ID: H08060095-002AMS	Sample Matrix Spike		Run: 1SATURN_080608B				06/09/08 15:39		
Acrylonitrile	93.6	ug/L	40	94	70	130			
Benzene	10.2	ug/L	2.0	102	70	130			
Bromochloromethane	9.52	ug/L	2.0	95	70	130			
Bromodichloromethane	9.76	ug/L	2.0	98	70	130			
Bromoform	8.88	ug/L	2.0	89	70	130			
Bromomethane	8.08	ug/L	2.0	81	70	130			
Carbon disulfide	11.0	ug/L	2.0	110	70	130			
Carbon tetrachloride	9.92	ug/L	2.0	99	70	130			
Chlorobenzene	9.20	ug/L	2.0	92	70	130			
Chlorodibromomethane	9.52	ug/L	2.0	95	70	130			
Chloroethane	9.20	ug/L	2.0	92	70	130			
Chloroform	8.88	ug/L	2.0	89	70	130			
Chloromethane	10.3	ug/L	2.0	103	70	130			
1,2-Dibromo-3-chloropropane	8.48	ug/L	2.0	85	70	130			
1,2-Dibromoethane	10.8	ug/L	2.0	108	70	130			
Dibromomethane	8.96	ug/L	2.0	90	70	130			
1,2-Dichlorobenzene	9.60	ug/L	2.0	96	70	130			
1,4-Dichlorobenzene	9.28	ug/L	2.0	93	70	130			
trans-1,4-Dichloro-2-butene	8.32	ug/L	2.0	83	70	130			
Dichlorodifluoromethane	10.2	ug/L	2.0	102	70	130			
1,1-Dichloroethane	9.60	ug/L	2.0	96	70	130			
1,2-Dichloroethane	9.44	ug/L	2.0	94	70	130			
1,1-Dichloroethene	9.28	ug/L	2.0	93	70	130			
cis-1,2-Dichloroethene	9.92	ug/L	2.0	99	70	130			
trans-1,2-Dichloroethene	10.0	ug/L	2.0	100	70	130			
1,2-Dichloropropane	11.0	ug/L	2.0	110	70	130			
cis-1,3-Dichloropropene	10.0	ug/L	2.0	100	70	130			
trans-1,3-Dichloropropene	10.1	ug/L	2.0	101	70	130			
Ethylbenzene	9.44	ug/L	2.0	94	70	130			
2-Hexanone	101	ug/L	40	101	70	130			
Iodomethane	8.96	ug/L	2.0	90	70	130			
Methyl ethyl ketone	93.6	ug/L	40	94	70	130			
Methyl isobutyl ketone	97.6	ug/L	40	98	70	130			
Methylene chloride	8.56	ug/L	2.0	86	70	130			
Styrene	10.2	ug/L	2.0	102	70	130			
1,1,1,2-Tetrachloroethane	9.60	ug/L	2.0	96	70	130			
1,1,2,2-Tetrachloroethane	8.88	ug/L	2.0	89	70	130			
Tetrachloroethene	9.92	ug/L	2.0	99	70	130			
Toluene	9.36	ug/L	2.0	94	70	130			
1,1,1-Trichloroethane	9.84	ug/L	2.0	98	70	130			
1,1,2-Trichloroethane	10.2	ug/L	2.0	102	70	130			
Trichloroethene	9.68	ug/L	2.0	97	70	130			
Trichlorofluoromethane	10.1	ug/L	2.0	101	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R45673
Sample ID: H08060095-002AMS	Sample Matrix Spike		Run: 1SATURN_080608B				06/09/08 15:39		
1,2,3-Trichloropropane	9.44	ug/L	2.0	94	70	130			
Vinyl acetate	8.16	ug/L	2.0	82	70	130			
Vinyl chloride	9.44	ug/L	2.0	94	70	130			
m+p-Xylenes	17.6	ug/L	2.0	88	70	130			
o-Xylene	9.04	ug/L	2.0	90	70	130			
Surr: 1,2-Dichloroethane-d4			2.0	103	70	130			
Surr: Dibromofluoromethane			2.0	97	70	130			
Surr: p-Bromofluorobenzene			2.0	90	70	130			
Surr: Toluene-d8			2.0	102	70	130			
Sample ID: H08060095-002AMSD	Sample Matrix Spike Duplicate		Run: 1SATURN_080608B				06/09/08 16:09		
Acetone	103	ug/L	40	103	70	130	7.2	20	
Acrylonitrile	97.6	ug/L	40	98	70	130	4.2	20	
Benzene	11.3	ug/L	2.0	113	70	130	9.7	20	
Bromochloromethane	10.0	ug/L	2.0	100	70	130	4.9	20	
Bromodichloromethane	10.2	ug/L	2.0	102	70	130	4.0	20	
Bromoform	9.44	ug/L	2.0	94	70	130	6.1	20	
Bromomethane	8.64	ug/L	2.0	86	70	130	6.7	20	
Carbon disulfide	12.2	ug/L	2.0	122	70	130	9.7	20	
Carbon tetrachloride	10.6	ug/L	2.0	106	70	130	6.3	20	
Chlorobenzene	9.68	ug/L	2.0	97	70	130	5.1	20	
Chlorodibromomethane	9.84	ug/L	2.0	98	70	130	3.3	20	
Chloroethane	10.2	ug/L	2.0	102	70	130	9.9	20	
Chloroform	9.76	ug/L	2.0	98	70	130	9.4	20	
Chloromethane	11.2	ug/L	2.0	112	70	130	8.2	20	
1,2-Dibromo-3-chloropropane	8.88	ug/L	2.0	89	70	130	4.6	20	
1,2-Dibromoethane	11.7	ug/L	2.0	117	70	130	7.8	20	
Dibromomethane	9.36	ug/L	2.0	94	70	130	4.4	20	
1,2-Dichlorobenzene	9.84	ug/L	2.0	98	70	130	2.5	20	
1,4-Dichlorobenzene	9.68	ug/L	2.0	97	70	130	4.2	20	
trans-1,4-Dichloro-2-butene	9.36	ug/L	2.0	94	70	130	12	20	
Dichlorodifluoromethane	11.0	ug/L	2.0	110	70	130	8.3	20	
1,1-Dichloroethane	10.0	ug/L	2.0	100	70	130	4.1	20	
1,2-Dichloroethane	10.1	ug/L	2.0	101	70	130	6.6	20	
1,1-Dichloroethene	10.2	ug/L	2.0	102	70	130	9.8	20	
cis-1,2-Dichloroethene	10.1	ug/L	2.0	101	70	130	1.6	20	
trans-1,2-Dichloroethene	10.7	ug/L	2.0	107	70	130	6.9	20	
1,2-Dichloropropane	11.5	ug/L	2.0	115	70	130	4.3	20	
cis-1,3-Dichloropropene	10.3	ug/L	2.0	103	70	130	3.1	20	
trans-1,3-Dichloropropene	10.6	ug/L	2.0	106	70	130	4.7	20	
Ethylbenzene	10.0	ug/L	2.0	100	70	130	5.8	20	
2-Hexanone	110	ug/L	40	110	70	130	9.1	20	
Iodomethane	10.1	ug/L	2.0	101	70	130	12	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/17/08
Work Order: H08060095

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R45673
Sample ID: H08060095-002AMSD	Sample Matrix Spike Duplicate			Run: 1SATURN_080608B				06/09/08 16:09	
Methyl ethyl ketone	100	ug/L	40	100	70	130	6.6	20	
Methyl isobutyl ketone	101	ug/L	40	101	70	130	3.2	20	
Methylene chloride	9.04	ug/L	2.0	90	70	130	5.5	20	
Styrene	10.5	ug/L	2.0	105	70	130	3.1	20	
1,1,1,2-Tetrachloroethane	10.6	ug/L	2.0	106	70	130	9.5	20	
1,1,2,2-Tetrachloroethane	9.36	ug/L	2.0	94	70	130	5.3	20	
Tetrachloroethene	10.2	ug/L	2.0	102	70	130	2.4	20	
Toluene	10.2	ug/L	2.0	102	70	130	8.2	20	
1,1,1-Trichloroethane	10.2	ug/L	2.0	102	70	130	4.0	20	
1,1,2-Trichloroethane	10.8	ug/L	2.0	108	70	130	5.3	20	
Trichloroethene	10.4	ug/L	2.0	104	70	130	7.2	20	
Trichlorofluoromethane	11.5	ug/L	2.0	115	70	130	13	20	
1,2,3-Trichloropropane	9.68	ug/L	2.0	97	70	130	2.5	20	
Vinyl acetate	8.64	ug/L	2.0	86	70	130	5.7	20	
Vinyl chloride	10.3	ug/L	2.0	103	70	130	8.9	20	
m+p-Xylenes	19.0	ug/L	2.0	95	70	130	7.9	20	
o-Xylene	9.60	ug/L	2.0	96	70	130	6.0	20	
Surr: 1,2-Dichloroethane-d4			2.0	100	70	130	0.0	20	
Surr: Dibromofluoromethane			2.0	97	70	130	0.0	20	
Surr: p-Bromofluorobenzene			2.0	90	70	130	0.0	20	
Surr: Toluene-d8			2.0	102	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]

Energy Laboratories Inc

Workorder Receipt Checklist



H08060095

Hydrometrics Inc

Login completed by: Roxanne L. Tubbs

Date and Time Received: 6/5/2008 1:14 PM

Reviewed by: *des jnk*

Received by: sld

Reviewed Date: 6/6/08

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	14.6°C From Field
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]



3020 Bozeman Avenue • Helena, Montana 59601 • (406) 443-4150

[illegible]

Site	Code	Date	Time	Bottles Passed
Pond	CHHL-0806-100	6/24/08	1600	2/40(uF/NLL/VOC)
Sprinklers	CHHL-0806-101		16:10	

Comments

Same As Before

Weather

Calm, Clear, 80°F

Readings 7/2/08

	Hr	Flow	Totalizer
99-3	1442.4	34.5	1) 1499135 2) 174937
99-2	1443.0	—	1) 572923 2) 971681
99-1	1443.2	8.4	1) 549857 2) 549659



ANALYTICAL SUMMARY REPORT

June 30, 2008

Hydrometrics Inc
3020 Bozeman Ave
Helena, MT 59601

Workorder No.: H08060476

Project Name: 8260 LL-Hydrometrics-City of Helena

Energy Laboratories Inc received the following 2 samples from Hydrometrics Inc on 6/25/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H08060476-001-CHHL-0806-100 0806		06/24/08 16:00	06/25/08	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I
H08060476-002	CHHL-0806-101	06/24/08 16:10	06/25/08	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

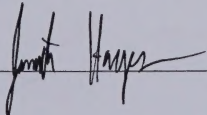
SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: 

CASE NARRATIVE

NONE



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 8260 LL-Hydrometrics-City of Helena
Lab ID: H08060476-001
Client Sample ID: CHHL-0306-100

Report Date: 06/28/08
Collection Date: 06/24/08 16:00
Date Received: 06/25/08
Matrix: Aqueous

Pond

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/25/08 19:16 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	06/25/08 19:16 / jdh
Benzene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/25/08 19:16 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Chloroform	0.29	ug/L	J	0.50		SW8260B	06/25/08 19:16 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	06/25/08 19:16 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/25/08 19:16 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/25/08 19:16 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	06/25/08 19:16 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	06/25/08 19:16 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/25/08 19:16 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/25/08 19:16 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Styrene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
Tetrachloroethene	0.38	ug/L	J	0.50		SW8260B	06/25/08 19:16 / jdh
Toluene	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:16 / jdh

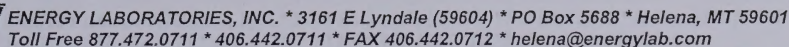
Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



Report Date: 06/28/08
Collection Date: 06/24/08 16:00
DateReceived: 06/25/08
Matrix: Aqueous

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 8260 LL-Hydrometrics-City of Helena
Lab ID: H08060476-002
Client Sample ID: CHHL-0806-101

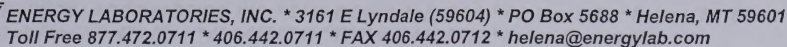
Report Date: 06/28/08
Collection Date: 06/24/08 16:10
Date Received: 06/25/08
Matrix: Aqueous

Sprinkler

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/25/08 19:46 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	06/25/08 19:46 / jdh
Benzene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/25/08 19:46 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Chloroform	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	06/25/08 19:46 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/25/08 19:46 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/25/08 19:46 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	06/25/08 19:46 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	06/25/08 19:46 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/25/08 19:46 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/25/08 19:46 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Styrene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Tetrachloroethene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
Toluene	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/08 19:46 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



Client: Hydrometrics Inc
Project: 8260 LL-Hydrometrics-City of Helena
Lab ID: H08060476-002
Client Sample ID: CHHL-0806-101

Report Date: 06/28/08
Collection Date: 06/24/08 16:10
DateReceived: 06/25/08
Matrix: Aqueous

[illegible]

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 06/28/08

Project: 8260 LL-Hydrometrics-City of Helena

Work Order: H08060476

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Analytical Run: 1SATURN_080625B							
Sample ID: CCV062508A	Continuing Calibration Verification Standard								06/25/08 09:41
Acetone	48.4	ug/L	20	97	70	130			
Acrylonitrile	46.8	ug/L	20	94	70	130			
Benzene	5.92	ug/L	1.0	118	70	130			
Bromochloromethane	5.08	ug/L	1.0	102	70	130			
Bromodichloromethane	5.04	ug/L	1.0	101	70	130			
Bromoform	4.88	ug/L	1.0	98	70	130			
Bromomethane	4.56	ug/L	1.0	91	70	130			
Carbon disulfide	5.44	ug/L	1.0	109	70	130			
Carbon tetrachloride	5.28	ug/L	1.0	106	70	130			
Chlorobenzene	5.28	ug/L	1.0	106	70	130			
Chlorodibromomethane	5.00	ug/L	1.0	100	70	130			
Chloroethane	5.36	ug/L	1.0	107	70	130			
Chloroform	4.72	ug/L	1.0	94	80	120			
Chloromethane	4.88	ug/L	1.0	98	70	130			
1,2-Dibromo-3-chloropropane	4.56	ug/L	1.0	91	70	130			
1,2-Dibromoethane	5.76	ug/L	1.0	115	70	130			
Dibromomethane	4.84	ug/L	1.0	97	70	130			
1,2-Dichlorobenzene	5.12	ug/L	1.0	102	70	130			
1,4-Dichlorobenzene	5.00	ug/L	1.0	100	70	130			
trans-1,4-Dichloro-2-butene	4.60	ug/L	1.0	92	70	130			
Dichlorodifluoromethane	4.60	ug/L	1.0	92	70	130			
1,1-Dichloroethane	5.52	ug/L	1.0	110	70	130			
1,2-Dichloroethane	4.76	ug/L	1.0	95	70	130			
1,1-Dichloroethene	5.20	ug/L	1.0	104	80	120			
cis-1,2-Dichloroethene	5.08	ug/L	1.0	102	70	130			
trans-1,2-Dichloroethene	5.60	ug/L	1.0	112	70	130			
1,2-Dichloropropane	5.96	ug/L	1.0	119	80	120			
cis-1,3-Dichloropropene	5.68	ug/L	1.0	114	70	130			
trans-1,3-Dichloropropene	5.56	ug/L	1.0	111	70	130			
Ethylbenzene	5.56	ug/L	1.0	111	80	120			
2-Hexanone	48.4	ug/L	20	97	70	130			
Iodomethane	4.64	ug/L	1.0	93	70	130			
Methyl ethyl ketone	42.4	ug/L	20	85	70	130			
Methyl isobutyl ketone	48.4	ug/L	20	97	70	130			
Methylene chloride	4.36	ug/L	1.0	87	70	130			
Styrene	5.40	ug/L	1.0	108	70	130			
1,1,1,2-Tetrachloroethane	5.88	ug/L	1.0	118	70	130			
1,1,2,2-Tetrachloroethane	4.80	ug/L	1.0	96	70	130			
Tetrachloroethene	5.60	ug/L	1.0	112	70	130			
Toluene	5.60	ug/L	1.0	112	80	120			
1,1,1-Trichloroethane	5.32	ug/L	1.0	106	70	130			
1,1,2-Trichloroethane	5.56	ug/L	1.0	111	70	130			
Trichloroethene	5.64	ug/L	1.0	113	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 8260 LL-Hydrometrics-City of Helena

Report Date: 06/28/08
Work Order: H08060476

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B			Analytical Run: 1SATURN_080625B						
Sample ID: CCV062508A	Continuing Calibration Verification Standard								06/25/08 09:41
Trichlorofluoromethane	4.72	ug/L	1.0	94	70	130			
1,2,3-Trichloropropane	5.80	ug/L	1.0	116	70	130			
Vinyl acetate	4.36	ug/L	1.0	87	70	130			
Vinyl chloride	4.56	ug/L	1.0	91	80	120			
m+p-Xylenes	10.3	ug/L	1.0	103	70	130			
o-Xylene	5.20	ug/L	1.0	104	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	82	70	130			
Surr: Dibromofluoromethane			1.0	94	70	130			
Surr: p-Bromofluorobenzene			1.0	86	70	130			
Surr: Toluene-d8			1.0	96	70	130			

Method: SW8260B			Batch: R46203						
Sample ID: LCS062508A	Laboratory Control Sample		Run: 1SATURN_080625B				06/25/08 10:25		
Acetone	45.2	ug/L	20	90	70	130			
Acrylonitrile	41.6	ug/L	20	83	70	130			
Benzene	5.48	ug/L	1.0	110	70	130			
Bromochloromethane	4.72	ug/L	1.0	94	70	130			
Bromodichloromethane	4.60	ug/L	1.0	92	70	130			
Bromoform	4.56	ug/L	1.0	91	70	130			
Bromomethane	4.56	ug/L	1.0	91	70	130			
Carbon disulfide	5.60	ug/L	1.0	112	70	130			
Carbon tetrachloride	5.00	ug/L	1.0	100	70	130			
Chlorobenzene	4.80	ug/L	1.0	96	70	130			
Chlorodibromomethane	4.52	ug/L	1.0	90	70	130			
Chloroethane	5.48	ug/L	1.0	110	70	130			
Chloroform	4.60	ug/L	1.0	92	70	130			
Chloromethane	4.88	ug/L	1.0	98	70	130			
1,2-Dibromo-3-chloropropane	3.96	ug/L	1.0	79	70	130			
1,2-Dibromoethane	5.16	ug/L	1.0	103	70	130			
Dibromomethane	4.68	ug/L	1.0	94	70	130			
1,2-Dichlorobenzene	4.60	ug/L	1.0	92	70	130			
1,4-Dichlorobenzene	4.56	ug/L	1.0	91	70	130			
trans-1,4-Dichloro-2-butene	4.52	ug/L	1.0	90	70	130			
Dichlorodifluoromethane	4.36	ug/L	1.0	87	70	130			
1,1-Dichloroethane	4.80	ug/L	1.0	96	70	130			
1,2-Dichloroethane	4.20	ug/L	1.0	84	70	130			
1,1-Dichloroethene	4.80	ug/L	1.0	96	70	130			
cis-1,2-Dichloroethene	4.44	ug/L	1.0	89	70	130			
trans-1,2-Dichloroethene	5.08	ug/L	1.0	102	70	130			
1,2-Dichloropropane	5.64	ug/L	1.0	113	70	130			
cis-1,3-Dichloropropene	5.28	ug/L	1.0	106	70	130			
trans-1,3-Dichloropropene	5.68	ug/L	1.0	114	70	130			
Ethylbenzene	5.08	ug/L	1.0	102	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 06/28/08

Project: 8260 LL-Hydrometrics-City of Helena

Work Order: H08060476

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R46203		
Sample ID: LCS062508A	Laboratory Control Sample			Run: 1SATURN_080625B			06/25/08 10:25		
2-Hexanone	48.0	ug/L	20	96	70	130			
Iodomethane	4.76	ug/L	1.0	95	70	130			
Methyl ethyl ketone	42.0	ug/L	20	84	70	130			
Methyl isobutyl ketone	46.0	ug/L	20	92	70	130			
Methylene chloride	3.92	ug/L	1.0	78	70	130			
Styrene	4.96	ug/L	1.0	99	70	130			
1,1,1,2-Tetrachloroethane	5.40	ug/L	1.0	108	70	130			
1,1,2,2-Tetrachloroethane	4.32	ug/L	1.0	86	70	130			
Tetrachloroethene	5.48	ug/L	1.0	110	70	130			
Toluene	5.24	ug/L	1.0	105	70	130			
1,1,1-Trichloroethane	5.00	ug/L	1.0	100	70	130			
1,1,2-Trichloroethane	5.28	ug/L	1.0	106	70	130			
Trichloroethene	5.28	ug/L	1.0	106	70	130			
Trichlorofluoromethane	5.16	ug/L	1.0	103	70	130			
1,2,3-Trichloropropane	4.60	ug/L	1.0	92	70	130			
Vinyl acetate	4.16	ug/L	1.0	83	70	130			
Vinyl chloride	4.48	ug/L	1.0	90	70	130			
m+p-Xylenes	9.52	ug/L	1.0	95	70	130			
o-Xylene	4.96	ug/L	1.0	99	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	89	70	130			
Surr: Dibromofluoromethane			1.0	98	70	130			
Surr: p-Bromofluorobenzene			1.0	87	70	130			
Surr: Toluene-d8			1.0	101	70	130			
Sample ID: MBLK062508A	Method Blank			Run: 1SATURN_080625B			06/25/08 11:40		
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	1.0						
Bromochloromethane	ND	ug/L	1.0						
Bromodichloromethane	ND	ug/L	1.0						
Bromoform	ND	ug/L	1.0						
Bromomethane	ND	ug/L	1.0						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	1.0						
Chlorobenzene	ND	ug/L	1.0						
Chlorodibromomethane	ND	ug/L	1.0						
Chloroethane	ND	ug/L	1.0						
Chloroform	ND	ug/L	1.0						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	1.0						
Dibromomethane	ND	ug/L	1.0						
1,2-Dichlorobenzene	ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 06/28/08

Project: 8260 LL-Hydrometrics-City of Helena

Work Order: H08060476

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R46203		
Sample ID: MBLK062508A	Method Blank		Run: 1SATURN_080625B				06/25/08 11:40		
1,4-Dichlorobenzene	ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	1.0						
1,2-Dichloroethane	ND	ug/L	1.0						
1,1-Dichloroethene	ND	ug/L	1.0						
cis-1,2-Dichloroethene	ND	ug/L	1.0						
trans-1,2-Dichloroethene	ND	ug/L	1.0						
1,2-Dichloropropane	ND	ug/L	1.0						
cis-1,3-Dichloropropene	ND	ug/L	1.0						
trans-1,3-Dichloropropene	ND	ug/L	1.0						
Ethylbenzene	ND	ug/L	1.0						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	1.0						
Styrene	ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0						
Tetrachloroethene	ND	ug/L	1.0						
Toluene	ND	ug/L	1.0						
1,1,1-Trichloroethane	ND	ug/L	1.0						
1,1,2-Trichloroethane	ND	ug/L	1.0						
Trichloroethene	ND	ug/L	1.0						
Trichlorofluoromethane	ND	ug/L	1.0						
1,2,3-Trichloropropane	ND	ug/L	1.0						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	1.0						
m+p-Xylenes	ND	ug/L	1.0						
o-Xylene	ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4			1.0	93	70	130			
Surr: Dibromofluoromethane			1.0	96	70	130			
Surr: p-Bromofluorobenzene			1.0	85	70	130			
Surr: Toluene-d8			1.0	96	70	130			
Sample ID: H08060419-001EMS	Sample Matrix Spike		Run: 1SATURN_080625B				06/25/08 20:16		
Acetone	88.8	ug/L	40	89	70	130			
Acrylonitrile	94.4	ug/L	40	94	70	130			
Benzene	9.68	ug/L	2.0	97	70	130			
Bromochloromethane	8.72	ug/L	2.0	87	70	130			
Bromodichloromethane	10.5	ug/L	2.0	105	70	130			
Bromoform	9.36	ug/L	2.0	94	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 06/28/08

Project: 8260 LL-Hydrometrics-City of Helena

Work Order: H08060476

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R46203		
Sample ID: H08060419-001EMS	Sample Matrix Spike		Run: 1SATURN_080625B				06/25/08 20:16		
Bromomethane	9.92	ug/L	2.0	99	70	130			
Carbon disulfide	11.2	ug/L	2.0	112	70	130			
Carbon tetrachloride	9.60	ug/L	2.0	96	70	130			
Chlorobenzene	10.3	ug/L	2.0	103	70	130			
Chlorodibromomethane	8.64	ug/L	2.0	86	70	130			
Chloroethane	9.76	ug/L	2.0	98	70	130			
Chloroform	9.12	ug/L	2.0	91	70	130			
Chloromethane	8.08	ug/L	2.0	81	70	130			
1,2-Dibromo-3-chloropropane	8.64	ug/L	2.0	86	70	130			
1,2-Dibromoethane	9.76	ug/L	2.0	98	70	130			
Dibromomethane	10.7	ug/L	2.0	107	70	130			
1,2-Dichlorobenzene	9.92	ug/L	2.0	99	70	130			
1,4-Dichlorobenzene	9.04	ug/L	2.0	90	70	130			
trans-1,4-Dichloro-2-butene	7.22	ug/L	2.0	72	70	130			
Dichlorodifluoromethane	8.72	ug/L	2.0	87	70	130			
1,1-Dichloroethane	9.44	ug/L	2.0	94	70	130			
1,2-Dichloroethane	9.36	ug/L	2.0	94	70	130			
1,1-Dichloroethene	9.44	ug/L	2.0	94	70	130			
cis-1,2-Dichloroethene	9.76	ug/L	2.0	98	70	130			
trans-1,2-Dichloroethene	10.3	ug/L	2.0	103	70	130			
1,2-Dichloropropane	11.8	ug/L	2.0	118	70	130			
cis-1,3-Dichloropropene	11.7	ug/L	2.0	117	70	130			
trans-1,3-Dichloropropene	11.8	ug/L	2.0	118	70	130			
Ethylbenzene	10.4	ug/L	2.0	104	70	130			
2-Hexanone	122	ug/L	40	122	70	130			
Iodomethane	9.68	ug/L	2.0	97	70	130			
Methyl ethyl ketone	97.6	ug/L	40	98	70	130			
Methyl isobutyl ketone	117	ug/L	40	117	70	130			
Methylene chloride	8.08	ug/L	2.0	81	70	130			
Styrene	11.5	ug/L	2.0	115	70	130			
1,1,1,2-Tetrachloroethane	11.0	ug/L	2.0	110	70	130			
1,1,2,2-Tetrachloroethane	8.24	ug/L	2.0	82	70	130			
Tetrachloroethene	11.6	ug/L	2.0	116	70	130			
Toluene	10.8	ug/L	2.0	108	70	130			
1,1,1-Trichloroethane	9.76	ug/L	2.0	98	70	130			
1,1,2-Trichloroethane	10.9	ug/L	2.0	109	70	130			
Trichloroethene	11.0	ug/L	2.0	110	70	130			
Trichlorofluoromethane	10.1	ug/L	2.0	101	70	130			
1,2,3-Trichloropropane	8.08	ug/L	2.0	81	70	130			
Vinyl acetate	9.04	ug/L	2.0	90	70	130			
Vinyl chloride	9.12	ug/L	2.0	91	70	130			
m+p-Xylenes	20.8	ug/L	2.0	104	70	130			
o-Xylene	10.8	ug/L	2.0	108	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 06/28/08

Project: 8260 LL-Hydrometrics-City of Helena

Work Order: H08060476

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R46203		
Sample ID: H08060419-001EMS		Sample Matrix Spike		Run: 1SATURN_080625B				06/25/08 20:16	
Surr: 1,2-Dichloroethane-d4	2.0	98	70	130					
Surr: Dibromofluoromethane	2.0	94	70	130					
Surr: p-Bromofluorobenzene	2.0	81	70	130					
Surr: Toluene-d8	2.0	105	70	130					
Sample ID: H08060419-001EMSD		Sample Matrix Spike Duplicate		Run: 1SATURN_080625B				06/25/08 20:46	
Acetone	88.0	ug/L	40	88	70	130	0.9	20	
Acrylonitrile	96.0	ug/L	40	96	70	130	1.7	20	
Benzene	9.44	ug/L	2.0	94	70	130	2.5	20	
Bromochloromethane	8.32	ug/L	2.0	83	70	130	4.7	20	
Bromodichloromethane	10.4	ug/L	2.0	104	70	130	0.8	20	
Bromoform	9.76	ug/L	2.0	98	70	130	4.2	20	
Bromomethane	9.76	ug/L	2.0	98	70	130	1.6	20	
Carbon disulfide	10.4	ug/L	2.0	104	70	130	7.4	20	
Carbon tetrachloride	9.36	ug/L	2.0	94	70	130	2.5	20	
Chlorobenzene	10.2	ug/L	2.0	102	70	130	0.8	20	
Chlorodibromomethane	9.36	ug/L	2.0	94	70	130	8.0	20	
Chloroethane	10.6	ug/L	2.0	106	70	130	7.9	20	
Chloroform	8.72	ug/L	2.0	87	70	130	4.5	20	
Chloromethane	7.69	ug/L	2.0	77	70	130	5.0	20	
1,2-Dibromo-3-chloropropane	9.28	ug/L	2.0	93	70	130	7.1	20	
1,2-Dibromoethane	10.7	ug/L	2.0	107	70	130	9.4	20	
Dibromomethane	10.4	ug/L	2.0	104	70	130	3.0	20	
1,2-Dichlorobenzene	9.84	ug/L	2.0	98	70	130	0.8	20	
1,4-Dichlorobenzene	8.72	ug/L	2.0	87	70	130	3.6	20	
trans-1,4-Dichloro-2-butene	8.16	ug/L	2.0	82	70	130	12	20	
Dichlorodifluoromethane	8.64	ug/L	2.0	86	70	130	0.9	20	
1,1-Dichloroethane	8.96	ug/L	2.0	90	70	130	5.2	20	
1,2-Dichloroethane	9.28	ug/L	2.0	93	70	130	0.9	20	
1,1-Dichloroethene	8.88	ug/L	2.0	89	70	130	6.1	20	
cis-1,2-Dichloroethene	9.12	ug/L	2.0	91	70	130	6.8	20	
trans-1,2-Dichloroethene	9.84	ug/L	2.0	98	70	130	4.8	20	
1,2-Dichloropropane	11.8	ug/L	2.0	118	70	130	0.0	20	
cis-1,3-Dichloropropene	11.2	ug/L	2.0	112	70	130	4.2	20	
trans-1,3-Dichloropropene	11.8	ug/L	2.0	118	70	130	0.0	20	
Ethylbenzene	10.6	ug/L	2.0	106	70	130	1.5	20	
2-Hexanone	127	ug/L	40	127	70	130	3.8	20	
Iodomethane	9.36	ug/L	2.0	94	70	130	3.4	20	
Methyl ethyl ketone	96.8	ug/L	40	97	70	130	0.8	20	
Methyl isobutyl ketone	124	ug/L	40	124	70	130	6.0	20	
Methylene chloride	7.66	ug/L	2.0	77	70	130	5.3	20	
Styrene	12.0	ug/L	2.0	120	70	130	4.1	20	
1,1,1,2-Tetrachloroethane	10.6	ug/L	2.0	106	70	130	3.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 06/28/08

Project: 8260 LL-Hydrometrics-City of Helena

Work Order: H08060476

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R46203
Sample ID: H08060419-001EMSD	Sample Matrix Spike Duplicate			Run: 1SATURN_080625B				06/25/08 20:46	
1,1,2,2-Tetrachloroethane	8.80	ug/L	2.0	88	70	130	6.6	20	
Tetrachloroethene	10.6	ug/L	2.0	106	70	130	9.4	20	
Toluene	10.9	ug/L	2.0	109	70	130	0.7	20	
1,1,1-Trichloroethane	9.44	ug/L	2.0	94	70	130	3.3	20	
1,1,2-Trichloroethane	11.2	ug/L	2.0	112	70	130	2.9	20	
Trichloroethene	11.4	ug/L	2.0	114	70	130	2.9	20	
Trichlorofluoromethane	10.7	ug/L	2.0	107	70	130	6.2	20	
1,2,3-Trichloropropane	8.48	ug/L	2.0	85	70	130	4.8	20	
Vinyl acetate	9.20	ug/L	2.0	92	70	130	1.8	20	
Vinyl chloride	9.36	ug/L	2.0	94	70	130	2.6	20	
m+p-Xylenes	20.8	ug/L	2.0	104	70	130	0.0	20	
o-Xylene	10.7	ug/L	2.0	107	70	130	0.7	20	
Surr: 1,2-Dichloroethane-d4			2.0	96	70	130	0.0	20	
Surr: Dibromofluoromethane			2.0	92	70	130	0.0	20	
Surr: p-Bromofluorobenzene			2.0	87	70	130	0.0	20	
Surr: Toluene-d8			2.0	105	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]

Energy Laboratories Inc

Workorder Receipt Checklist



H08060476

Hydrometrics Inc

Login completed by: Sandra L. Camden

Date and Time Received: 6/25/2008 8:56 AM

 Reviewed by: *WJ 50K*

Received by: slc

 Reviewed Date: *6-26-08*

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed w hen relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees w ith sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received w ithin holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	4.5°C On Ice
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

 Contact and Corrective Action Comments:

Took collection date & times from sample bottles. Sc



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]

Pond

CHHL-
0807-
100

7/25/08

11:30

2/40/117/HLL/VAC.

Comments

Same As Before

Weather

75°F, Calm, Clear

Sprinklers

CHHL-
0807-
101

11:45

Readings 7/25/08

	<u>Hr</u>	<u>Flow</u>	<u>Totalizer</u>
99-3	1995.2	37.4	1) 4249648 2) 399485
99-2	1995.8	0.0	1) 572923 2) 97681
99-1	1996.0	0.0	1) 549666 2) 549666

ANALYTICAL SUMMARY REPORT

August 14, 2008

Hydrometrics Inc
3020 Bozeman Ave
Helena, MT 59601

Workorder No.: H08070520

Project Name: 1273 City of Helena

Energy Laboratories Inc received the following 4 samples from Hydrometrics Inc on 7/25/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H08070520-001	CHHL-0807-100	07/25/08 11:30	07/25/08	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I
H08070520-002	CHHL-0807-101	07/25/08 11:45	07/25/08	Aqueous	Same As Above
H08070520-003	CC Stack	07/25/08 9:50	07/25/08	Air	Same As Above
H08070520-004	YMCA Stack	07/25/08 10:30	07/25/08	Air	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

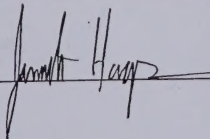
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____





LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08070520-001
Client Sample ID: CHHL-0807-100

Report Date: 08/14/08
Collection Date: 07/25/08 11:30
Date Received: 07/25/08
Matrix: Aqueous

Pond

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20	SW8260B	08/01/08 13:25 / eli-b	
Acrylonitrile	ND	ug/L		20	SW8260B	08/01/08 13:25 / eli-b	
Benzene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Bromochloromethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Bromodichloromethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Bromoform	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Bromomethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Carbon disulfide	ND	ug/L		1.0	SW8260B	08/01/08 13:25 / eli-b	
Carbon tetrachloride	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Chlorobenzene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Chlorodibromomethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Chloroethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Chloroform	0.48	ug/L	J	0.50	SW8260B	08/01/08 13:25 / eli-b	
Chloromethane	ND	ug/L		1.0	SW8260B	08/01/08 13:25 / eli-b	
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0	SW8260B	08/01/08 13:25 / eli-b	
1,2-Dibromoethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Dibromomethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,2-Dichlorobenzene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,4-Dichlorobenzene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Dichlorodifluoromethane	ND	ug/L		1.0	SW8260B	08/01/08 13:25 / eli-b	
1,1-Dichloroethane	0.21	ug/L	J	0.50	SW8260B	08/01/08 13:25 / eli-b	
1,2-Dichloroethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,1-Dichloroethene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
cis-1,2-Dichloroethene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
trans-1,2-Dichloroethene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,2-Dichloropropane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
cis-1,3-Dichloropropene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
trans-1,3-Dichloropropene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Ethylbenzene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
2-Hexanone	ND	ug/L		20	SW8260B	08/01/08 13:25 / eli-b	
Iodomethane	ND	ug/L		1.0	SW8260B	08/01/08 13:25 / eli-b	
Methyl ethyl ketone	ND	ug/L		20	SW8260B	08/01/08 13:25 / eli-b	
Methyl isobutyl ketone	ND	ug/L		20	SW8260B	08/01/08 13:25 / eli-b	
Methylene chloride	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Styrene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Tetrachloroethene	0.54	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
Toluene	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,1,1-Trichloroethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	
1,1,2-Trichloroethane	ND	ug/L		0.50	SW8260B	08/01/08 13:25 / eli-b	

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08070520-001
Client Sample ID: CHHL-0807-100

Report Date: 08/14/08
Collection Date: 07/25/08 11:30
Date Received: 07/25/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
Vinyl acetate	ND	ug/L		1.0		SW8260B	08/01/08 13:25 / eli-b
Vinyl chloride	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
m+p-Xylenes	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
o-Xylene	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
Surr: 1,2-Dichloroethane-d4	96.0	%REC		70-130		SW8260B	08/01/08 13:25 / eli-b
Surr: Dibromofluoromethane	99.0	%REC		77-126		SW8260B	08/01/08 13:25 / eli-b
Surr: p-Bromofluorobenzene	106	%REC		76-127		SW8260B	08/01/08 13:25 / eli-b
Surr: Toluene-d8	107	%REC		79-122		SW8260B	08/01/08 13:25 / eli-b
Chloroform	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
Chloroacetaldehyde	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
Chloroacetylene	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d4	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d6	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d8	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d10	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d12	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d14	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d16	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d18	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d20	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d22	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d24	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d26	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d28	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d30	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d32	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d34	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d36	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d38	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d40	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d42	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d44	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d46	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d48	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d50	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d52	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d54	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d56	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d58	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d60	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d62	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d64	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d66	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d68	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d70	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d72	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d74	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d76	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d78	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d80	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d82	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d84	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d86	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d88	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d90	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d92	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d94	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d96	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d98	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b
1,2-Dichloroethane-d100	ND	ug/L		0.50		SW8260B	08/01/08 13:25 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08070520-002
Client Sample ID: CHHL-0807-101

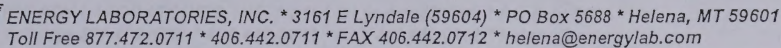
Report Date: 08/14/08
Collection Date: 07/25/08 11:45
Date Received: 07/25/08
Matrix: Aqueous

Sprinkler

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	08/01/08 14:07 / eli-b
Acrylonitrile	ND	ug/L		20		SW8260B	08/01/08 14:07 / eli-b
Benzene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Bromochloromethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Bromodichloromethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Bromoform	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Bromomethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Carbon disulfide	ND	ug/L		1.0		SW8260B	08/01/08 14:07 / eli-b
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Chlorobenzene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Chloroethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Chloroform	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Chloromethane	ND	ug/L		1.0		SW8260B	08/01/08 14:07 / eli-b
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	08/01/08 14:07 / eli-b
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Dibromomethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	08/01/08 14:07 / eli-b
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Ethylbenzene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
2-Hexanone	ND	ug/L		20		SW8260B	08/01/08 14:07 / eli-b
Iodomethane	ND	ug/L		1.0		SW8260B	08/01/08 14:07 / eli-b
Methyl ethyl ketone	ND	ug/L		20		SW8260B	08/01/08 14:07 / eli-b
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	08/01/08 14:07 / eli-b
Methylene chloride	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Styrene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Tetrachloroethene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Toluene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Report Date: 08/14/08
Collection Date: 07/25/08 11:45
DateReceived: 07/25/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Vinyl acetate	ND	ug/L		1.0		SW8260B	08/01/08 14:07 / eli-b
Vinyl chloride	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
m+p-Xylenes	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
o-Xylene	ND	ug/L		0.50		SW8260B	08/01/08 14:07 / eli-b
Surr: 1,2-Dichloroethane-d4	99.0	%REC		70-130		SW8260B	08/01/08 14:07 / eli-b
Surr: Dibromofluoromethane	102	%REC		77-126		SW8260B	08/01/08 14:07 / eli-b
Surr: p-Bromofluorobenzene	102	%REC		76-127		SW8260B	08/01/08 14:07 / eli-b
Surr: Toluene-d8	98.0	%REC		79-122		SW8260B	08/01/08 14:07 / eli-b

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Batch: B_R115145							
Sample ID: H08070520-001A	Sample Matrix Spike		Run: SUB-B115145		08/01/08 21:05				
Acetone	97.6	ug/L	40	98	62	130	0.0	20	
Acrylonitrile	103	ug/L	40	103	60	130	0.0	20	
Benzene	10.7	ug/L	2.0	107	71	133	0.0	20	
Bromochloromethane	10.5	ug/L	2.0	105	68	131	0.0	20	
Bromodichloromethane	10.6	ug/L	2.0	106	67	138	0.0	20	
Bromoform	9.60	ug/L	2.0	96	64	136	0.0	20	
Bromomethane	11.5	ug/L	2.0	115	60	138	0.0	20	
Carbon disulfide	11.4	ug/L	2.0	114	46	146	0.0	20	
Carbon tetrachloride	11.2	ug/L	2.0	112	61	144	0.0	20	
Chlorobenzene	11.0	ug/L	2.0	110	78	136	0.0	20	
Chlorodibromomethane	10.7	ug/L	2.0	107	72	136	0.0	20	
Chloroethane	10.0	ug/L	2.0	100	64	136	0.0	20	
Chloroform	11.4	ug/L	2.0	109	69	133	0.0	20	
Chloromethane	10.0	ug/L	2.0	100	63	149	0.0	20	
1,2-Dibromo-3-chloropropane	10.2	ug/L	2.0	102	63	125	0.0	20	
1,2-Dibromoethane	10.4	ug/L	2.0	104	75	131	0.0	20	
Dibromomethane	10.9	ug/L	2.0	109	72	133	0.0	20	
1,2-Dichlorobenzene	9.92	ug/L	2.0	99	78	129	0.0	20	
1,4-Dichlorobenzene	10.3	ug/L	2.0	103	78	132	0.0	20	
trans-1,4-Dichloro-2-butene	11.6	ug/L	2.0	116	50	142	0.0	20	
Dichlorodifluoromethane	15.5	ug/L	2.0	155	55	141	0.0	20	S
1,1-Dichloroethane	10.7	ug/L	2.0	105	72	130	0.0	20	
1,2-Dichloroethane	10.9	ug/L	2.0	109	57	146	0.0	20	
1,1-Dichloroethene	10.1	ug/L	2.0	101	66	142	0.0	20	
cis-1,2-Dichloroethene	10.1	ug/L	2.0	101	74	133	0.0	20	
trans-1,2-Dichloroethene	10.3	ug/L	2.0	103	76	138	0.0	20	
1,2-Dichloropropane	10.2	ug/L	2.0	102	72	135	0.0	20	
cis-1,3-Dichloropropene	10.7	ug/L	2.0	107	75	132	0.0	20	
trans-1,3-Dichloropropene	11.1	ug/L	2.0	111	77	145	0.0	20	
Ethylbenzene	9.92	ug/L	2.0	99	78	131	0.0	20	
2-Hexanone	105	ug/L	40	105	72	131	0.0	20	
Iodomethane	13.4	ug/L	2.0	134	66	132	0.0	20	S
Methyl ethyl ketone	98.4	ug/L	40	98	55	145	0.0	20	
Methyl isobutyl ketone	96.0	ug/L	40	96	73	129	0.0	20	
Methylene chloride	10.1	ug/L	2.0	101	73	126	0.0	20	
Styrene	10.5	ug/L	2.0	105	76	134	0.0	20	
1,1,1,2-Tetrachloroethane	10.7	ug/L	2.0	107	75	135	0.0	20	
1,1,2,2-Tetrachloroethane	10.4	ug/L	2.0	104	72	132	0.0	20	
Tetrachloroethene	10.4	ug/L	2.0	99	78	137	0.0	20	
Toluene	10.6	ug/L	2.0	106	78	134	0.0	20	
1,1,1-Trichloroethane	11.0	ug/L	2.0	110	64	141	0.0	20	
1,1,2-Trichloroethane	10.3	ug/L	2.0	103	72	133	0.0	20	
Trichloroethene	10.2	ug/L	2.0	102	75	138	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B			Batch: B_R115145						
Sample ID: H08070520-001A	Sample Matrix Spike		Run: SUB-B115145					08/01/08 21:05	
Trichlorofluoromethane	11.5	ug/L	2.0	115	58	139	0.0	20	
1,2,3-Trichloropropane	8.96	ug/L	2.0	90	67	133	0.0	20	
Vinyl acetate	9.84	ug/L	2.0	98	42	120	0.0	20	
Vinyl chloride	12.0	ug/L	2.0	120	66	140	0.0	20	
m+p-Xylenes	22.0	ug/L	2.0	110	78	133	0.0	20	
o-Xylene	11.0	ug/L	2.0	110	79	136	0.0	20	
Xylenes, Total	33.0	ug/L	2.0	110	70	130	0.0	20	
Surr: 1,2-Dichloroethane-d4			2.0	102	70	130			
Surr: Dibromofluoromethane			2.0	103	77	126			
Surr: p-Bromofluorobenzene			2.0	99	76	127			
Surr: Toluene-d8			2.0	104	79	122			
Sample ID: H08070520-001A	Sample Matrix Spike Duplicate		Run: SUB-B115145					08/01/08 21:53	
Acetone	87.2	ug/L	40	87	62	130	11	20	
Acrylonitrile	96.0	ug/L	40	96	60	130	7.2	20	
Benzene	9.92	ug/L	2.0	99	71	133	7.8	20	
Bromochloromethane	9.92	ug/L	2.0	99	68	131	5.5	20	
Bromodichloromethane	9.84	ug/L	2.0	98	67	138	7.8	20	
Bromoform	9.20	ug/L	2.0	92	64	136	4.3	20	
Bromomethane	12.0	ug/L	2.0	120	60	138	4.1	20	
Carbon disulfide	10.6	ug/L	2.0	106	46	146	7.3	20	
Carbon tetrachloride	10.6	ug/L	2.0	106	61	144	5.9	20	
Chlorobenzene	10.1	ug/L	2.0	101	78	136	8.4	20	
Chlorodibromomethane	10.1	ug/L	2.0	101	72	136	6.2	20	
Chloroethane	10.1	ug/L	2.0	101	64	136	0.8	20	
Chloroform	10.2	ug/L	2.0	98	69	133	10	20	
Chloromethane	10.3	ug/L	2.0	103	63	149	3.1	20	
1,2-Dibromo-3-chloropropane	9.60	ug/L	2.0	96	63	125	5.7	20	
1,2-Dibromoethane	10.3	ug/L	2.0	103	75	131	0.8	20	
Dibromomethane	10.1	ug/L	2.0	101	72	133	7.6	20	
1,2-Dichlorobenzene	9.84	ug/L	2.0	98	78	129	0.8	20	
1,4-Dichlorobenzene	10.0	ug/L	2.0	100	78	132	3.1	20	
trans-1,4-Dichloro-2-butene	14.1	ug/L	2.0	141	50	142	19	20	
Dichlorodifluoromethane	15.0	ug/L	2.0	150	55	141	3.1	20	S
1,1-Dichloroethane	10.2	ug/L	2.0	100	72	130	5.4	20	
1,2-Dichloroethane	10.6	ug/L	2.0	106	57	146	3.0	20	
1,1-Dichloroethene	9.52	ug/L	2.0	95	66	142	5.7	20	
cis-1,2-Dichloroethene	9.84	ug/L	2.0	98	74	133	2.4	20	
trans-1,2-Dichloroethene	10.1	ug/L	2.0	101	76	138	2.4	20	
1,2-Dichloropropane	10.2	ug/L	2.0	102	72	135	0.8	20	
cis-1,3-Dichloropropene	10.4	ug/L	2.0	104	75	132	3.0	20	
trans-1,3-Dichloropropene	11.0	ug/L	2.0	110	77	145	0.7	20	
Ethylbenzene	9.92	ug/L	2.0	99	78	131	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: B_R115145		
Sample ID: H08070520-001A	Sample Matrix Spike Duplicate				Run: SUB-B115145			08/01/08 21:53	
2-Hexanone	96.0	ug/L	40	96	72	131	8.8	20	
Iodomethane	12.6	ug/L	2.0	126	66	132	6.1	20	
Methyl ethyl ketone	91.2	ug/L	40	91	55	145	7.6	20	
Methyl isobutyl ketone	93.6	ug/L	40	94	73	129	2.5	20	
Methylene chloride	9.52	ug/L	2.0	95	73	126	5.7	20	
Styrene	10.2	ug/L	2.0	102	76	134	2.3	20	
1,1,1,2-Tetrachloroethane	10.4	ug/L	2.0	104	75	135	3.0	20	
1,1,2,2-Tetrachloroethane	10.2	ug/L	2.0	102	72	132	2.3	20	
Tetrachloroethene	9.92	ug/L	2.0	94	78	137	4.7	20	
Toluene	10.3	ug/L	2.0	103	78	134	2.3	20	
1,1,1-Trichloroethane	10.1	ug/L	2.0	101	64	141	8.4	20	
1,1,2-Trichloroethane	9.60	ug/L	2.0	96	72	133	7.2	20	
Trichloroethene	10.1	ug/L	2.0	101	75	138	1.6	20	
Trichlorofluoromethane	10.9	ug/L	2.0	109	58	139	5.7	20	
1,2,3-Trichloropropane	9.20	ug/L	2.0	92	67	133	2.6	20	
Vinyl acetate	9.44	ug/L	2.0	94	42	120	4.1	20	
Vinyl chloride	12.1	ug/L	2.0	121	66	140	0.7	20	
m+p-Xylenes	20.6	ug/L	2.0	103	78	133	6.4	20	
o-Xylene	10.6	ug/L	2.0	106	79	136	4.4	20	
Xylenes, Total	31.2	ug/L	2.0	104	70	130	5.7	20	
Surr: 1,2-Dichloroethane-d4			2.0	98	70	130			
Surr: Dibromofluoromethane			2.0	101	77	126			
Surr: p-Bromofluorobenzene			2.0	100	76	127			
Surr: Toluene-d8			2.0	104	79	122			
Sample ID: Ics080108	Laboratory Control Sample				Run: SUB-B115145			08/01/08 11:26	
Acetone	39.8	ug/L	20	80	62	130			
Acrylonitrile	46.4	ug/L	20	93	60	130			
Benzene	5.08	ug/L	0.50	102	71	133			
Bromochloromethane	4.84	ug/L	0.50	97	68	131			
Bromodichloromethane	5.08	ug/L	0.50	102	67	138			
Bromoform	4.60	ug/L	0.50	92	64	136			
Bromomethane	6.04	ug/L	0.50	121	60	138			
Carbon disulfide	5.04	ug/L	1.0	101	46	146			
Carbon tetrachloride	5.20	ug/L	0.50	104	61	144			
Chlorobenzene	5.32	ug/L	0.50	106	78	136			
Chlorodibromomethane	5.20	ug/L	0.50	104	72	136			
Chloroethane	4.80	ug/L	0.50	96	64	136			
Chloroform	5.04	ug/L	0.50	101	69	133			
Chloromethane	5.04	ug/L	1.0	101	63	149			
1,2-Dibromo-3-chloropropane	4.76	ug/L	1.0	95	63	125			
1,2-Dibromoethane	5.12	ug/L	0.50	102	75	131			
Dibromomethane	5.16	ug/L	0.50	103	72	133			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Batch: B_R115145							
Sample ID: Ics080108	Laboratory Control Sample		Run: SUB-B115145				08/01/08 11:26		
1,2-Dichlorobenzene	4.92	ug/L	0.50	98	78	129			
1,4-Dichlorobenzene	5.12	ug/L	0.50	102	78	132			
trans-1,4-Dichloro-2-butene	6.80	ug/L	0.50	136	50	142			
Dichlorodifluoromethane	7.48	ug/L	1.0	150	55	141			S
1,1-Dichloroethane	5.08	ug/L	0.50	102	72	130			
1,2-Dichloroethane	5.08	ug/L	0.50	102	57	146			
1,1-Dichloroethene	4.68	ug/L	0.50	94	66	142			
cis-1,2-Dichloroethene	4.72	ug/L	0.50	94	74	133			
trans-1,2-Dichloroethene	4.96	ug/L	0.50	99	76	138			
1,2-Dichloropropane	5.16	ug/L	0.50	103	72	135			
cis-1,3-Dichloropropene	5.52	ug/L	0.50	110	75	132			
trans-1,3-Dichloropropene	5.76	ug/L	0.50	115	77	145			
Ethylbenzene	5.04	ug/L	0.50	101	78	131			
2-Hexanone	46.0	ug/L	20	92	72	131			
Iodomethane	5.76	ug/L	1.0	115	66	132			
Methyl ethyl ketone	42.4	ug/L	20	85	55	145			
Methyl isobutyl ketone	46.4	ug/L	20	93	73	129			
Methylene chloride	4.72	ug/L	0.50	94	73	126			
Styrene	5.08	ug/L	0.50	102	76	134			
1,1,1,2-Tetrachloroethane	5.12	ug/L	0.50	102	75	135			
1,1,2,2-Tetrachloroethane	4.92	ug/L	0.50	98	72	132			
Tetrachloroethene	4.92	ug/L	0.50	98	78	137			
Toluene	5.12	ug/L	0.50	102	78	134			
1,1,1-Trichloroethane	5.08	ug/L	0.50	102	64	141			
1,1,2-Trichloroethane	5.00	ug/L	0.50	100	72	133			
Trichloroethene	5.16	ug/L	0.50	103	75	138			
Trichlorofluoromethane	5.12	ug/L	0.50	102	58	139			
1,2,3-Trichloropropane	4.72	ug/L	0.50	94	67	133			
Vinyl acetate	4.72	ug/L	1.0	94	42	120			
Vinyl chloride	5.80	ug/L	0.50	116	66	140			
m+p-Xylenes	10.6	ug/L	0.50	106	78	133			
o-Xylene	5.36	ug/L	0.50	107	79	136			
Xylenes, Total	16.0	ug/L	0.50	107	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	96	70	130			
Surr: Dibromofluoromethane			1.0	99	77	126			
Surr: p-Bromofluorobenzene			1.0	102	76	127			
Surr: Toluene-d8			1.0	108	79	122			
Sample ID: blk080108	Method Blank		Run: SUB-B115145				08/01/08 12:44		
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	0.50						
Bromochloromethane	ND	ug/L	0.50						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

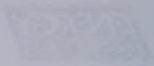
Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Batch: B_R115145							
Sample ID: blk080108	Method Blank		Run: SUB-B115145				08/01/08 12:44		
Bromodichloromethane	ND	ug/L	0.50						
Bromoform	ND	ug/L	0.50						
Bromomethane	ND	ug/L	0.50						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	0.50						
Chlorobenzene	ND	ug/L	0.50						
Chlorodibromomethane	ND	ug/L	0.50						
Chloroethane	ND	ug/L	0.50						
Chloroform	ND	ug/L	0.50						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	0.50						
Dibromomethane	ND	ug/L	0.50						
1,2-Dichlorobenzene	ND	ug/L	0.50						
1,4-Dichlorobenzene	ND	ug/L	0.50						
trans-1,4-Dichloro-2-butene	ND	ug/L	0.50						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	0.50						
1,2-Dichloroethane	ND	ug/L	0.50						
1,1-Dichloroethene	ND	ug/L	0.50						
cis-1,2-Dichloroethene	ND	ug/L	0.50						
trans-1,2-Dichloroethene	ND	ug/L	0.50						
1,2-Dichloropropane	ND	ug/L	0.50						
cis-1,3-Dichloropropene	ND	ug/L	0.50						
trans-1,3-Dichloropropene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	0.50						
Styrene	ND	ug/L	0.50						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50						
Tetrachloroethene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
1,1,1-Trichloroethane	ND	ug/L	0.50						
1,1,2-Trichloroethane	ND	ug/L	0.50						
Trichloroethene	ND	ug/L	0.50						
Trichlorofluoromethane	ND	ug/L	0.50						
1,2,3-Trichloropropane	ND	ug/L	0.50						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	0.50						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

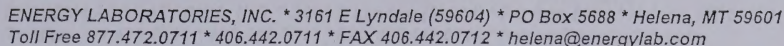


CAZCO Boundary Report

Project: CAZCO
Date: 10/1/2000

Location: CAZCO
Scale: 1:250,000

Station	Station Description	Station Number	Station Elevation	Station Area
1	CAZCO	100	100	100
2	CAZCO	200	200	200
3	CAZCO	300	300	300
4	CAZCO	400	400	400
5	CAZCO	500	500	500
6	CAZCO	600	600	600
7	CAZCO	700	700	700
8	CAZCO	800	800	800
9	CAZCO	900	900	900
10	CAZCO	1000	1000	1000
11	CAZCO	1100	1100	1100
12	CAZCO	1200	1200	1200
13	CAZCO	1300	1300	1300
14	CAZCO	1400	1400	1400
15	CAZCO	1500	1500	1500
16	CAZCO	1600	1600	1600
17	CAZCO	1700	1700	1700
18	CAZCO	1800	1800	1800
19	CAZCO	1900	1900	1900
20	CAZCO	2000	2000	2000
21	CAZCO	2100	2100	2100
22	CAZCO	2200	2200	2200
23	CAZCO	2300	2300	2300
24	CAZCO	2400	2400	2400
25	CAZCO	2500	2500	2500
26	CAZCO	2600	2600	2600
27	CAZCO	2700	2700	2700
28	CAZCO	2800	2800	2800
29	CAZCO	2900	2900	2900
30	CAZCO	3000	3000	3000
31	CAZCO	3100	3100	3100
32	CAZCO	3200	3200	3200
33	CAZCO	3300	3300	3300
34	CAZCO	3400	3400	3400
35	CAZCO	3500	3500	3500
36	CAZCO	3600	3600	3600
37	CAZCO	3700	3700	3700
38	CAZCO	3800	3800	3800
39	CAZCO	3900	3900	3900
40	CAZCO	4000	4000	4000
41	CAZCO	4100	4100	4100
42	CAZCO	4200	4200	4200
43	CAZCO	4300	4300	4300
44	CAZCO	4400	4400	4400
45	CAZCO	4500	4500	4500
46	CAZCO	4600	4600	4600
47	CAZCO	4700	4700	4700
48	CAZCO	4800	4800	4800
49	CAZCO	4900	4900	4900
50	CAZCO	5000	5000	5000



Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: B_R115145
Sample ID: blk080108	Method Blank					Run: SUB-B115145			08/01/08 12:44
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: 1,2-Dichloroethane-d4			1.0	96	70	130			
Surr: Dibromofluoromethane			1.0	100	77	126			
Surr: p-Bromofluorobenzene			1.0	105	76	127			
Surr: Toluene-d8			1.0	102	79	122			
1,1-Dichloroethene	0.00	ug/L	0.00	0	0	0			
1,1,1-Trichloroethene	0.00	ug/L	0.00	0	0	0			
1,1,2-Trichloroethene	0.00	ug/L	0.00	0	0	0			
1,2-Dichloroethene	0.00	ug/L	0.00	0	0	0			
1,2,3-Trichloroethene	0.00	ug/L	0.00	0	0	0			
1,2,4-Trichloroethene	0.00	ug/L	0.00	0	0	0			
1,3-Dichloroethene	0.00	ug/L	0.00	0	0	0			
1,3,5-Trichlorobenzene	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d2	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d4	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d6	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d8	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d10	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d12	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d14	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d16	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d18	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d20	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d22	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d24	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d26	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d28	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d30	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d32	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d34	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d36	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d38	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d40	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d42	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d44	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d46	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d48	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d50	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d52	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d54	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d56	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d58	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d60	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d62	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d64	0.00	ug/L	0.00	0	0	0			
1,4-Dichlorobenzene-1,4-d66	0.00	ug/L	0.00	0	0	0			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Batch: B_R115512							
Sample ID: LCS	Laboratory Control Sample		Run: SUB-B115512				08/06/08 09:58		
Acetone	46.4	mg/m3	10	93	62	130			
Benzene	5.72	mg/m3	0.50	114	71	133			
Bromochloromethane	6.64	mg/m3	0.50	133	68	131			S
Bromodichloromethane	6.12	mg/m3	0.50	122	67	138			
Bromoform	6.84	mg/m3	0.50	137	64	136			S
Bromomethane	6.12	mg/m3	0.50	122	60	138			
Carbon tetrachloride	5.76	mg/m3	0.50	115	61	144			
Chlorobenzene	5.84	mg/m3	0.50	117	78	136			
Chlorodibromomethane	7.00	mg/m3	0.50	140	72	136			S
Chloroethane	5.60	mg/m3	0.50	112	64	136			
Chloroform	5.76	mg/m3	0.50	115	69	133			
Chloromethane	5.72	mg/m3	0.50	114	63	149			
1,2-Dibromo-3-chloropropane	6.12	mg/m3	0.50	122	63	125			
1,2-Dibromoethane	6.88	mg/m3	0.50	138	75	131			S
Dibromomethane	6.72	mg/m3	0.50	134	72	133			S
1,2-Dichlorobenzene	5.96	mg/m3	0.50	119	78	129			
1,4-Dichlorobenzene	5.84	mg/m3	0.50	117	78	132			
Dichlorodifluoromethane	8.84	mg/m3	0.50	177	55	141			S
1,1-Dichloroethane	5.48	mg/m3	0.50	110	72	130			
1,2-Dichloroethane	7.12	mg/m3	0.50	142	57	146			
1,1-Dichloroethene	4.80	mg/m3	0.50	96	66	142			
cis-1,2-Dichloroethene	5.52	mg/m3	0.50	110	74	133			
trans-1,2-Dichloroethene	5.32	mg/m3	0.50	106	76	138			
1,2-Dichloropropane	5.80	mg/m3	0.50	116	72	135			
cis-1,3-Dichloropropene	6.72	mg/m3	0.50	134	75	132			S
trans-1,3-Dichloropropene	7.40	mg/m3	0.50	148	77	145			S
Ethylbenzene	5.36	mg/m3	0.50	107	78	131			
2-Hexanone	62.4	mg/m3	10	125	72	131			
Methyl ethyl ketone	58.4	mg/m3	10	117	55	145			
Methyl isobutyl ketone	61.2	mg/m3	10	122	73	129			
Methylene chloride	5.72	mg/m3	0.50	114	73	126			
Styrene	5.88	mg/m3	0.50	118	76	134			
1,1,1,2-Tetrachloroethane	6.24	mg/m3	0.50	125	75	135			
1,1,2,2-Tetrachloroethane	7.04	mg/m3	0.50	141	72	132			S
Tetrachloroethene	5.12	mg/m3	0.50	102	78	137			
Toluene	5.40	mg/m3	0.50	108	78	134			
1,1,1-Trichloroethane	5.40	mg/m3	0.50	108	64	141			
1,1,2-Trichloroethane	6.60	mg/m3	0.50	132	72	133			
Trichloroethene	5.16	mg/m3	0.50	103	75	138			
Trichlorofluoromethane	5.84	mg/m3	0.50	117	58	139			
1,2,3-Trichloropropane	6.32	mg/m3	0.50	126	67	133			
Vinyl chloride	6.56	mg/m3	0.50	131	66	140			
m+p-Xylenes	11.0	mg/m3	0.50	110	78	133			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: B_R115512		
Sample ID: LCS	Laboratory Control Sample			Run: SUB-B115512			08/06/08 09:58		
o-Xylene	5.80	mg/m3	0.50	116	79	136			
Surr: 1,2-Dichloroethane-d4			0.50	102	70	130			
Surr: Dibromofluoromethane			0.50	102	77	126			
Surr: p-Bromofluorobenzene			0.50	102	76	127			
Surr: Toluene-d8			0.50	98	79	122			
Sample ID: LCSLX	Laboratory Control Sample			Run: SUB-B115512			08/06/08 10:37		
Acrylonitrile	58.4	mg/m3	10	117	60	130			
Carbon disulfide	5.68	mg/m3	0.50	114	46	146			
trans-1,4-Dichloro-2-butene	9.80	mg/m3	0.50	196	50	142			S
Iodomethane	6.00	mg/m3	0.50	120	66	132			
Vinyl acetate	6.96	mg/m3	0.50	139	42	120			S
Surr: 1,2-Dichloroethane-d4			0.50	94	70	130			
Surr: Dibromofluoromethane			0.50	99	77	126			
Surr: p-Bromofluorobenzene			0.50	102	76	127			
Surr: Toluene-d8			0.50	99	79	122			
Sample ID: BLKAIR	Method Blank			Run: SUB-B115512			08/06/08 11:16		
Acetone	ND	mg/m3	10						
Acrylonitrile	ND	mg/m3	10						
Benzene	ND	mg/m3	0.50						
Bromochloromethane	ND	mg/m3	0.50						
Bromodichloromethane	ND	mg/m3	0.50						
Bromoform	ND	mg/m3	0.50						
Bromomethane	ND	mg/m3	0.50						
Carbon disulfide	ND	mg/m3	0.50						
Carbon tetrachloride	ND	mg/m3	0.50						
Chlorobenzene	ND	mg/m3	0.50						
Chlorodibromomethane	ND	mg/m3	0.50						
Chloroethane	ND	mg/m3	0.50						
Chloroform	ND	mg/m3	0.50						
Chloromethane	ND	mg/m3	0.50						
1,2-Dibromo-3-chloropropane	ND	mg/m3	0.50						
1,2-Dibromoethane	ND	mg/m3	0.50						
Dibromomethane	ND	mg/m3	0.50						
1,2-Dichlorobenzene	ND	mg/m3	0.50						
1,4-Dichlorobenzene	ND	mg/m3	0.50						
trans-1,4-Dichloro-2-butene	ND	mg/m3	0.50						
Dichlorodifluoromethane	ND	mg/m3	0.50						
1,1-Dichloroethane	ND	mg/m3	0.50						
1,2-Dichloroethane	ND	mg/m3	0.50						
1,1-Dichloroethene	ND	mg/m3	0.50						
cis-1,2-Dichloroethene	ND	mg/m3	0.50						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 08/14/08
Work Order: H08070520

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B			Batch: B_R115512						
Sample ID: BLKAIR	Method Blank		Run: SUB-B115512			08/06/08 11:16			
trans-1,2-Dichloroethene	ND	mg/m3	0.50						
1,2-Dichloropropane	ND	mg/m3	0.50						
cis-1,3-Dichloropropene	ND	mg/m3	0.50						
trans-1,3-Dichloropropene	ND	mg/m3	0.50						
Ethylbenzene	ND	mg/m3	0.50						
2-Hexanone	ND	mg/m3	10						
Iodomethane	ND	mg/m3	0.50						
Methyl ethyl ketone	ND	mg/m3	10						
Methyl isobutyl ketone	ND	mg/m3	10						
Methylene chloride	ND	mg/m3	0.50						
Styrene	ND	mg/m3	0.50						
1,1,1,2-Tetrachloroethane	ND	mg/m3	0.50						
1,1,2,2-Tetrachloroethane	ND	mg/m3	0.50						
Tetrachloroethene	ND	mg/m3	0.50						
Toluene	ND	mg/m3	0.50						
1,1,1-Trichloroethane	ND	mg/m3	0.50						
1,1,2-Trichloroethane	ND	mg/m3	0.50						
Trichloroethene	ND	mg/m3	0.50						
Trichlorofluoromethane	ND	mg/m3	0.50						
1,2,3-Trichloropropane	ND	mg/m3	0.50						
Vinyl acetate	ND	mg/m3	0.50						
Vinyl chloride	ND	mg/m3	0.50						
m+p-Xylenes	ND	mg/m3	0.50						
o-Xylene	ND	mg/m3	0.50						
Surr: 1,2-Dichloroethane-d4			0.50	97	70	130			
Surr: Dibromofluoromethane			0.50	99	77	126			
Surr: p-Bromofluorobenzene			0.50	100	76	127			
Surr: Toluene-d8			0.50	95	79	122			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

Split Samples:
☐ Accepted ☐ Declined _____ Signature _____

PURCHASE ORDER

Energy Laboratories Inc

Workorder Receipt Checklist



H08070520

Hydrometrics Inc

Login completed by: Roxanne L. Tubbs

Date and Time Received: 7/25/2008 1:30 PM

 Reviewed by: *abb*

Received by: abb

Reviewed Date: 7/28/08

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	16.6°C From Field
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



DATE: 7/25/08

Hydrometrics, Inc.
2727 Airport Road
Helena, MT 59601
Phone: (406) 443-4150
Fax: (406) 443-1252

REQUISITION NO.

HLN 09595

SELLER WILL SHIP TO:

Submit separate duplicate invoices for each order to:

ORDERED BY

SELLER WILL SHIP BEFORE

TERMS

Hydrometrics, Inc.
2727 Airport Road
Helena, MT 59601
(406) 443-4150 ext. 181

Invoices shall include the above Purchase Order number.

SHIP VIA

Total Price 880.00

1. Show Purchase Order number on all packages, packing slips, bills of lading, invoices and other paper pertaining to this transaction.
2. Packing List and Original Bill of Lading must accompany each invoice.

3. All terms and conditions appearing on the reverse side of this Purchase Order and attachments hereto are hereby made a part of this Order. Delivery of goods or initiation of services constitutes Seller's acceptance of and agreement to the terms and conditions appearing on this Purchase Order, the reverse side of this Order and on attachments hereto.

Unless otherwise specified above, all deliveries will be accepted only between the hours of 8:00 a.m. and 4:30 p.m. - Monday through Friday.
Material Safety Data Sheet is required when applicable.

By:

Authorized Purchaser

Entry onto Hydrometrics job sites are potentially hazardous, restricted to trained, properly equipped personnel and limited to Hydrometrics designated areas, pursuant to site rules and procedures.

Sprinkler CHHL- 8/29/68 0915 2/42/47/HCL/VOX
0808-
100

Comments

Same As Before

Weather

Calm, Clear, 65°

Readings Hr Flow Totalizer

99-3 2833.1 ——— NA

99-2 1995.8 37.2 572960
471724

99-1 2834.0 5.98 895657
344067



ANALYTICAL SUMMARY REPORT

September 16, 2008

Hydrometrics Inc
3020 Bozeman Ave
Helena, MT 59601

Workorder No.: H08080498

Project Name: 1273 City of Helena

Energy Laboratories Inc received the following 1 sample from Hydrometrics Inc on 8/29/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H08080498-001	CHHL-0808-100	08/29/08 9:15	08/29/08	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

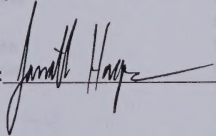
SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: 



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08080498-001
Client Sample ID: CHHL-0808-100

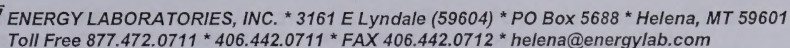
Sprinkler

Report Date: 09/08/08
Collection Date: 08/29/08 09:15
Date Received: 08/29/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	09/08/08 12:29 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	09/08/08 12:29 / jdh
Benzene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	09/08/08 12:29 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Chloroform	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	09/08/08 12:29 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	09/08/08 12:29 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	09/08/08 12:29 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	09/08/08 12:29 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	09/08/08 12:29 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	09/08/08 12:29 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	09/08/08 12:29 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Styrene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Tetrachloroethene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Toluene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh
Trichloroethene	ND	ug/L		0.50		SW8260B	09/08/08 12:29 / jdh

Report: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08080498-001
Client Sample ID: CHHL-0808-100

Report Date: 09/08/08
Collection Date: 08/29/08 09:15
DateReceived: 08/29/08
Matrix: Aqueous

[illegible]

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/08/08
Work Order: H08080498

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Analytical Run: 1SATURN_080908A								
Sample ID: CCV090808A		53 Continuing Calibration Verification Standard								09/08/08 08:26
Acetone		48.0	ug/L	20	96	70	130			
Acrylonitrile		45.2	ug/L	20	90	70	130			
Benzene		5.60	ug/L	1.0	112	70	130			
Bromochloromethane		5.52	ug/L	1.0	110	70	130			
Bromodichloromethane		5.12	ug/L	1.0	102	70	130			
Bromoform		4.92	ug/L	1.0	98	70	130			
Bromomethane		5.16	ug/L	1.0	103	70	130			
Carbon disulfide		5.04	ug/L	1.0	101	70	130			
Carbon tetrachloride		5.64	ug/L	1.0	113	70	130			
Chlorobenzene		5.56	ug/L	1.0	111	70	130			
Chlorodibromomethane		4.80	ug/L	1.0	96	70	130			
Chloroethane		5.92	ug/L	1.0	118	70	130			
Chloroform		5.04	ug/L	1.0	101	80	120			
Chloromethane		6.08	ug/L	1.0	122	70	130			
1,2-Dibromo-3-chloropropane		5.00	ug/L	1.0	100	70	130			
1,2-Dibromoethane		5.28	ug/L	1.0	106	70	130			
Dibromomethane		4.88	ug/L	1.0	98	70	130			
1,2-Dichlorobenzene		5.24	ug/L	1.0	105	70	130			
1,4-Dichlorobenzene		5.36	ug/L	1.0	107	70	130			
trans-1,4-Dichloro-2-butene		4.28	ug/L	1.0	86	70	130			
Dichlorodifluoromethane		5.36	ug/L	1.0	107	70	130			
1,1-Dichloroethane		5.36	ug/L	1.0	107	70	130			
1,2-Dichloroethane		4.88	ug/L	1.0	98	70	130			
1,1-Dichloroethene		5.40	ug/L	1.0	108	80	120			
cis-1,2-Dichloroethene		5.16	ug/L	1.0	103	70	130			
trans-1,2-Dichloroethene		5.20	ug/L	1.0	104	70	130			
1,2-Dichloropropane		4.96	ug/L	1.0	99	80	120			
cis-1,3-Dichloropropene		5.52	ug/L	1.0	110	70	130			
trans-1,3-Dichloropropene		5.24	ug/L	1.0	105	70	130			
Ethylbenzene		5.48	ug/L	1.0	110	80	120			
2-Hexanone		56.8	ug/L	20	114	70	130			
Iodomethane		3.90	ug/L	1.0	78	70	130			
Methyl ethyl ketone		51.2	ug/L	20	102	70	130			
Methyl isobutyl ketone		53.2	ug/L	20	106	70	130			
Methylene chloride		4.88	ug/L	1.0	98	70	130			
Styrene		5.56	ug/L	1.0	111	70	130			
1,1,1,2-Tetrachloroethane		5.36	ug/L	1.0	107	70	130			
1,1,2,2-Tetrachloroethane		5.00	ug/L	1.0	100	70	130			
Tetrachloroethene		5.52	ug/L	1.0	110	70	130			
Toluene		5.52	ug/L	1.0	110	80	120			
1,1,1-Trichloroethane		5.64	ug/L	1.0	113	70	130			
1,1,2-Trichloroethane		5.40	ug/L	1.0	108	70	130			
Trichloroethene		5.12	ug/L	1.0	102	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/08/08
Work Order: H08080498

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B								Analytical Run: 1SATURN_080908A		
Sample ID: CCV090808A		53 Continuing Calibration Verification Standard								09/08/08 08:26
Trichlorofluoromethane		5.20	ug/L	1.0	104	70	130			
1,2,3-Trichloropropane		4.92	ug/L	1.0	98	70	130			
Vinyl acetate		4.96	ug/L	1.0	99	70	130			
Vinyl chloride		5.44	ug/L	1.0	109	80	120			
m+p-Xylenes		11.0	ug/L	1.0	110	70	130			
o-Xylene		5.44	ug/L	1.0	109	70	130			
Surr: 1,2-Dichloroethane-d4				1.0	104	70	130			
Surr: Dibromofluoromethane				1.0	115	70	130			
Surr: p-Bromofluorobenzene				1.0	96	70	130			
Surr: Toluene-d8				1.0	110	70	130			
Method: SW8260B								Batch: R48218		
Sample ID: LCS090808A		53 Laboratory Control Sample								09/08/08 09:19
				Run: 1SATURN_080908A						
Acetone		50.0	ug/L	20	100	70	130			
Acrylonitrile		45.6	ug/L	20	91	70	130			
Benzene		5.44	ug/L	1.0	109	70	130			
Bromochloromethane		5.36	ug/L	1.0	107	70	130			
Bromodichloromethane		4.64	ug/L	1.0	93	70	130			
Bromoform		4.56	ug/L	1.0	91	70	130			
Bromomethane		4.76	ug/L	1.0	95	70	130			
Carbon disulfide		6.08	ug/L	1.0	122	70	130			
Carbon tetrachloride		5.40	ug/L	1.0	108	70	130			
Chlorobenzene		5.04	ug/L	1.0	101	70	130			
Chlorodibromomethane		4.48	ug/L	1.0	90	70	130			
Chloroethane		4.84	ug/L	1.0	97	70	130			
Chloroform		5.00	ug/L	1.0	100	70	130			
Chloromethane		5.04	ug/L	1.0	101	70	130			
1,2-Dibromo-3-chloropropane		4.80	ug/L	1.0	96	70	130			
1,2-Dibromoethane		4.92	ug/L	1.0	98	70	130			
Dibromomethane		4.76	ug/L	1.0	95	70	130			
1,2-Dichlorobenzene		5.00	ug/L	1.0	100	70	130			
1,4-Dichlorobenzene		5.12	ug/L	1.0	102	70	130			
trans-1,4-Dichloro-2-butene		4.84	ug/L	1.0	97	70	130			
Dichlorodifluoromethane		4.60	ug/L	1.0	92	70	130			
1,1-Dichloroethane		5.08	ug/L	1.0	102	70	130			
1,2-Dichloroethane		4.76	ug/L	1.0	95	70	130			
1,1-Dichloroethene		5.80	ug/L	1.0	116	70	130			
cis-1,2-Dichloroethene		4.92	ug/L	1.0	98	70	130			
trans-1,2-Dichloroethene		5.36	ug/L	1.0	107	70	130			
1,2-Dichloropropane		4.80	ug/L	1.0	96	70	130			
cis-1,3-Dichloropropene		5.04	ug/L	1.0	101	70	130			
trans-1,3-Dichloropropene		4.88	ug/L	1.0	98	70	130			
Ethylbenzene		5.08	ug/L	1.0	102	70	130			
2-Hexanone		54.8	ug/L	20	110	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/08/08
Work Order: H08080498

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48218
Sample ID: LCS090808A	53	Laboratory Control Sample				Run: 1SATURN_080908A			09/08/08 09:19	
Iodomethane		4.64	ug/L	1.0	93	70	130			
Methyl ethyl ketone		48.0	ug/L	20	96	70	130			
Methyl isobutyl ketone		54.8	ug/L	20	110	70	130			
Methylene chloride		4.84	ug/L	1.0	97	70	130			
Styrene		5.08	ug/L	1.0	102	70	130			
1,1,1,2-Tetrachloroethane		4.80	ug/L	1.0	96	70	130			
1,1,2,2-Tetrachloroethane		5.00	ug/L	1.0	100	70	130			
Tetrachloroethene		5.32	ug/L	1.0	106	70	130			
Toluene		5.00	ug/L	1.0	100	70	130			
1,1,1-Trichloroethane		5.60	ug/L	1.0	112	70	130			
1,1,2-Trichloroethane		4.76	ug/L	1.0	95	70	130			
Trichloroethene		4.96	ug/L	1.0	99	70	130			
Trichlorofluoromethane		4.76	ug/L	1.0	95	70	130			
1,2,3-Trichloropropane		4.40	ug/L	1.0	88	70	130			
Vinyl acetate		4.48	ug/L	1.0	90	70	130			
Vinyl chloride		4.68	ug/L	1.0	94	70	130			
m+p-Xylenes		9.88	ug/L	1.0	99	70	130			
o-Xylene		5.16	ug/L	1.0	103	70	130			
Surr: 1,2-Dichloroethane-d4				1.0	99	70	130			
Surr: Dibromofluoromethane				1.0	114	70	130			
Surr: p-Bromofluorobenzene				1.0	100	70	130			
Surr: Toluene-d8				1.0	100	70	130			
Sample ID: MBLK090808A	53	Method Blank				Run: 1SATURN_080908A			09/08/08 10:33	
Acetone		ND	ug/L	20						
Acrylonitrile		ND	ug/L	20						
Benzene		ND	ug/L	1.0						
Bromochloromethane		ND	ug/L	1.0						
Bromodichloromethane		ND	ug/L	1.0						
Bromoform		ND	ug/L	1.0						
Bromomethane		ND	ug/L	1.0						
Carbon disulfide		ND	ug/L	1.0						
Carbon tetrachloride		ND	ug/L	1.0						
Chlorobenzene		ND	ug/L	1.0						
Chlorodibromomethane		ND	ug/L	1.0						
Chloroethane		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane		ND	ug/L	1.0						
1,2-Dibromoethane		ND	ug/L	1.0						
Dibromomethane		ND	ug/L	1.0						
1,2-Dichlorobenzene		ND	ug/L	1.0						
1,4-Dichlorobenzene		ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene		ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/08/08
Work Order: H08080498

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48218
Sample ID: MBLK090808A	53	Method Blank		Run: 1SATURN_080908A				09/08/08 10:33		
Dichlorodifluoromethane		ND	ug/L	1.0						
1,1-Dichloroethane		ND	ug/L	1.0						
1,2-Dichloroethane		ND	ug/L	1.0						
1,1-Dichloroethene		ND	ug/L	1.0						
cis-1,2-Dichloroethene		ND	ug/L	1.0						
trans-1,2-Dichloroethene		ND	ug/L	1.0						
1,2-Dichloropropane		ND	ug/L	1.0						
cis-1,3-Dichloropropene		ND	ug/L	1.0						
trans-1,3-Dichloropropene		ND	ug/L	1.0						
Ethylbenzene		ND	ug/L	1.0						
2-Hexanone		ND	ug/L	20						
Iodomethane		ND	ug/L	1.0						
Methyl ethyl ketone		ND	ug/L	20						
Methyl isobutyl ketone		ND	ug/L	20						
Methylene chloride		ND	ug/L	1.0						
Styrene		ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane		ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane		ND	ug/L	1.0						
Tetrachloroethene		ND	ug/L	1.0						
Toluene		ND	ug/L	1.0						
1,1,1-Trichloroethane		ND	ug/L	1.0						
1,1,2-Trichloroethane		ND	ug/L	1.0						
Trichloroethene		ND	ug/L	1.0						
Trichlorofluoromethane		ND	ug/L	1.0						
1,2,3-Trichloropropane		ND	ug/L	1.0						
Vinyl acetate		ND	ug/L	1.0						
Vinyl chloride		ND	ug/L	1.0						
m+p-Xylenes		ND	ug/L	1.0						
o-Xylene		ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4				1.0	97	70	130			
Surr: Dibromofluoromethane				1.0	102	70	130			
Surr: p-Bromofluorobenzene				1.0	88	70	130			
Surr: Toluene-d8				1.0	94	70	130			
Sample ID: H08080498-001AMS	53	Sample Matrix Spike		Run: 1SATURN_080908A				09/08/08 13:11		
Acetone		101	ug/L	40	101	70	130			
Acrylonitrile		100	ug/L	40	100	70	130			
Benzene		12.6	ug/L	2.0	126	70	130			
Bromochloromethane		12.8	ug/L	2.0	128	70	130			
Bromodichloromethane		10.8	ug/L	2.0	108	70	130			
Bromoform		9.92	ug/L	2.0	99	70	130			
Bromomethane		11.0	ug/L	2.0	110	70	130			
Carbon disulfide		11.5	ug/L	2.0	115	70	130			
Carbon tetrachloride		12.0	ug/L	2.0	120	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/08/08
Work Order: H08080498

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48218
Sample ID: H08080498-001AMS	53	Sample Matrix Spike				Run: 1SATURN_080908A				09/08/08 13:11
Chlorobenzene		11.8	ug/L	2.0	118	70	130			
Chlorodibromomethane		10.8	ug/L	2.0	108	70	130			
Chloroethane		10.8	ug/L	2.0	108	70	130			
Chloroform		11.0	ug/L	2.0	110	70	130			
Chloromethane		11.2	ug/L	2.0	112	70	130			
1,2-Dibromo-3-chloropropane		9.92	ug/L	2.0	99	70	130			
1,2-Dibromoethane		11.0	ug/L	2.0	110	70	130			
Dibromomethane		10.7	ug/L	2.0	107	70	130			
1,2-Dichlorobenzene		11.2	ug/L	2.0	112	70	130			
1,4-Dichlorobenzene		11.6	ug/L	2.0	116	70	130			
trans-1,4-Dichloro-2-butene		9.28	ug/L	2.0	93	70	130			
Dichlorodifluoromethane		10.5	ug/L	2.0	105	70	130			
1,1-Dichloroethane		11.4	ug/L	2.0	114	70	130			
1,2-Dichloroethane		10.2	ug/L	2.0	102	70	130			
1,1-Dichloroethene		13.0	ug/L	2.0	130	70	130			
cis-1,2-Dichloroethene		11.0	ug/L	2.0	110	70	130			
trans-1,2-Dichloroethene		11.8	ug/L	2.0	118	70	130			
1,2-Dichloropropane		11.0	ug/L	2.0	110	70	130			
cis-1,3-Dichloropropene		11.3	ug/L	2.0	113	70	130			
trans-1,3-Dichloropropene		11.4	ug/L	2.0	114	70	130			
Ethylbenzene		12.1	ug/L	2.0	121	70	130			
2-Hexanone		123	ug/L	40	123	70	130			
Iodomethane		8.72	ug/L	2.0	87	70	130			
Methyl ethyl ketone		106	ug/L	40	106	70	130			
Methyl isobutyl ketone		120	ug/L	40	120	70	130			
Methylene chloride		10.7	ug/L	2.0	107	70	130			
Styrene		11.4	ug/L	2.0	114	70	130			
1,1,1,2-Tetrachloroethane		10.7	ug/L	2.0	107	70	130			
1,1,2,2-Tetrachloroethane		10.5	ug/L	2.0	105	70	130			
Tetrachloroethene		12.4	ug/L	2.0	124	70	130			
Toluene		12.0	ug/L	2.0	120	70	130			
1,1,1-Trichloroethane		11.1	ug/L	2.0	111	70	130			
1,1,2-Trichloroethane		10.8	ug/L	2.0	108	70	130			
Trichloroethene		11.4	ug/L	2.0	114	70	130			
Trichlorofluoromethane		11.0	ug/L	2.0	110	70	130			
1,2,3-Trichloropropane		9.28	ug/L	2.0	93	70	130			
Vinyl acetate		11.0	ug/L	2.0	110	70	130			
Vinyl chloride		10.2	ug/L	2.0	102	70	130			
m+p-Xylenes		23.4	ug/L	2.0	117	70	130			
o-Xylene		12.0	ug/L	2.0	120	70	130			
Surr: 1,2-Dichloroethane-d4				2.0	106	70	130			
Surr: Dibromofluoromethane				2.0	116	70	130			
Surr: p-Bromofluorobenzene				2.0	98	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/08/08
Work Order: H08080498

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48218
Sample ID: H08080498-001AMS										09/08/08 13:11
53 Sample Matrix Spike		Run: 1SATURN_080908A								
Surr: Toluene-d8				2.0	111	70	130			
Sample ID: H06080498-001AMSD										09/08/08 13:40
53 Sample Matrix Spike Duplicate		Run: 1SATURN_080908A								
Acetone		105	ug/L	40	105	70	130	3.9	20	
Acrylonitrile		88.0	ug/L	40	88	70	130	13	20	
Benzene		10.2	ug/L	2.0	102	70	130	22	20	R
Bromochloromethane		10.0	ug/L	2.0	100	70	130	25	20	R
Bromodichloromethane		9.12	ug/L	2.0	91	70	130	17	20	
Bromoform		9.12	ug/L	2.0	91	70	130	8.4	20	
Bromomethane		8.80	ug/L	2.0	88	70	130	23	20	R
Carbon disulfide		9.84	ug/L	2.0	98	70	130	16	20	
Carbon tetrachloride		9.04	ug/L	2.0	90	70	130	28	20	R
Chlorobenzene		10.4	ug/L	2.0	104	70	130	13	20	
Chlorodibromomethane		9.20	ug/L	2.0	92	70	130	16	20	
Chloroethane		9.28	ug/L	2.0	93	70	130	15	20	
Chloroform		8.88	ug/L	2.0	89	70	130	21	20	R
Chloromethane		9.44	ug/L	2.0	94	70	130	17	20	
1,2-Dibromo-3-chloropropane		9.44	ug/L	2.0	94	70	130	5	20	
1,2-Dibromoethane		10.1	ug/L	2.0	101	70	130	9.1	20	
Dibromomethane		8.96	ug/L	2.0	90	70	130	18	20	
1,2-Dichlorobenzene		9.92	ug/L	2.0	99	70	130	12	20	
1,4-Dichlorobenzene		9.68	ug/L	2.0	97	70	130	18	20	
trans-1,4-Dichloro-2-butene		8.16	ug/L	2.0	82	70	130	13	20	
Dichlorodifluoromethane		8.72	ug/L	2.0	87	70	130	18	20	
1,1-Dichloroethane		9.68	ug/L	2.0	97	70	130	16	20	
1,2-Dichloroethane		8.88	ug/L	2.0	89	70	130	14	20	
1,1-Dichloroethene		10.6	ug/L	2.0	106	70	130	21	20	R
cis-1,2-Dichloroethene		8.72	ug/L	2.0	87	70	130	23	20	R
trans-1,2-Dichloroethene		9.60	ug/L	2.0	96	70	130	21	20	R
1,2-Dichloropropane		9.28	ug/L	2.0	93	70	130	17	20	
cis-1,3-Dichloropropene		9.84	ug/L	2.0	98	70	130	14	20	
trans-1,3-Dichloropropene		9.92	ug/L	2.0	99	70	130	14	20	
Ethylbenzene		10.4	ug/L	2.0	104	70	130	15	20	
2-Hexanone		128	ug/L	40	128	70	130	3.8	20	
Iodomethane		7.72	ug/L	2.0	77	70	130	12	20	
Methyl ethyl ketone		106	ug/L	40	106	70	130	0	20	
Methyl isobutyl ketone		122	ug/L	40	122	70	130	2	20	
Methylene chloride		8.96	ug/L	2.0	90	70	130	18	20	
Styrene		10.2	ug/L	2.0	102	70	130	11	20	
1,1,1,2-Tetrachloroethane		9.36	ug/L	2.0	94	70	130	14	20	
1,1,2,2-Tetrachloroethane		9.68	ug/L	2.0	97	70	130	7.9	20	
Tetrachloroethene		10.3	ug/L	2.0	103	70	130	18	20	
Toluene		10.2	ug/L	2.0	102	70	130	17	20	
1,1,1-Trichloroethane		9.68	ug/L	2.0	97	70	130	14	20	

Qualifiers:

RL - Analyte reporting limit.
R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/08/08
Work Order: H08080498

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48218
Sample ID: H08080498-001AMSD	53	Sample Matrix Spike Duplicate			Run: 1SATURN_080908A					09/08/08 13:40
1,1,2-Trichloroethane		9.84	ug/L	2.0	98	70	130	9.3	20	
Trichloroethene		10.6	ug/L	2.0	106	70	130	6.5	20	
Trichlorofluoromethane		8.88	ug/L	2.0	89	70	130	22	20	R
1,2,3-Trichloropropane		8.08	ug/L	2.0	81	70	130	14	20	
Vinyl acetate		11.2	ug/L	2.0	112	70	130	2.2	20	
Vinyl chloride		8.88	ug/L	2.0	89	70	130	14	20	
m+p-Xylenes		19.3	ug/L	2.0	96	70	130	19	20	
o-Xylene		10.0	ug/L	2.0	100	70	130	18	20	
Surr: 1,2-Dichloroethane-d4				2.0	109	70	130	0	20	
Surr: Dibromofluoromethane				2.0	109	70	130	0	20	
Surr: p-Bromofluorobenzene				2.0	92	70	130	0	20	
Surr: Toluene-d8				2.0	112	70	130	0	20	

Qualifiers:

RL - Analyte reporting limit.
R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]

HFORM-1-5/99

Return results & electronic copy to:
Computer Dept. at address at top of page

Split Samples:

☐ Accepted ☐ Declined

Signature _____

Energy Laboratories Inc

Workorder Receipt Checklist



H08080498

Hydrometrics Inc

Login completed by: Wanda Johnson

Date and Time Received: 8/29/2008 10:31 AM

Reviewed by: *WJS*

Received by: wjj

Reviewed Date: 9/2/08

Carrier name: had

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	7.3°C From Field		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]

Sprinkler CHHL 9/18/08 1330 2140/4F/HCL/VEE
0809-
100

Comments
SIA ME

Weather
75° Calm, Clear

Readings

<u>Well #</u>	<u>Hr</u>	<u>Flow</u>	<u>Totalizer</u>
44-3	3317.2	33.3	1) 387352 2) 387360
44-2	2479.9	^{37.4} 19.8	1) 84070.1 2) 482822
44-1	3318.1	5.59	1) 58375.2 2) 506789



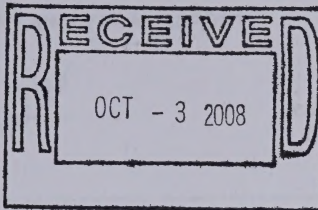
ANALYTICAL SUMMARY REPORT

September 26, 2008

Hydrometrics Inc
3020 Bozeman Ave
Helena, MT 59601

Workorder No.: H08090356

Project Name: 1273 City of Helena



Energy Laboratories Inc received the following 1 sample from Hydrometrics Inc on 9/18/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H08090356-001	CHHL-0809-100	09/18/08 0:00	09/18/08	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H08090356-001
Client Sample ID: CHHL-0809-100

Sprinkler

Report Date: 09/23/08
Collection Date: 09/18/08
Date Received: 09/18/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	09/22/08 16:56 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	09/22/08 16:56 / jdh
Benzene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	09/22/08 16:56 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Chloroform	0.21	ug/L	J	0.50		SW8260B	09/22/08 16:56 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	09/22/08 16:56 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	09/22/08 16:56 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	09/22/08 16:56 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	09/22/08 16:56 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	09/22/08 16:56 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	09/22/08 16:56 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	09/22/08 16:56 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Styrene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Tetrachloroethene	0.22	ug/L	J	0.50		SW8260B	09/22/08 16:56 / jdh
Toluene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh
Trichloroethene	ND	ug/L		0.50		SW8260B	09/22/08 16:56 / jdh

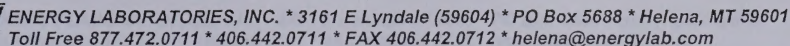
Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



Report Date: 09/23/08
Collection Date: 09/18/08
DateReceived: 09/18/08
Matrix: Aqueous

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/23/08
Work Order: H08090356

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Analytical Run: 1SATURN_080922A								
Sample ID: CCV092208D		53 Continuing Calibration Verification Standard								09/22/08 14:42
Acetone		47.2	ug/L	20	94	70	130			
Acrylonitrile		50.0	ug/L	20	100	70	130			
Benzene		5.08	ug/L	1.0	102	70	130			
Bromochloromethane		4.52	ug/L	1.0	90	70	130			
Bromodichloromethane		4.56	ug/L	1.0	91	70	130			
Bromoform		4.12	ug/L	1.0	82	70	130			
Bromomethane		4.84	ug/L	1.0	97	70	130			
Carbon disulfide		5.04	ug/L	1.0	101	70	130			
Carbon tetrachloride		4.84	ug/L	1.0	97	70	130			
Chlorobenzene		5.64	ug/L	1.0	113	70	130			
Chlorodibromomethane		4.48	ug/L	1.0	90	70	130			
Chloroethane		5.64	ug/L	1.0	113	70	130			
Chloroform		4.32	ug/L	1.0	86	80	120			
Chloromethane		5.48	ug/L	1.0	110	70	130			
1,2-Dibromo-3-chloropropane		4.56	ug/L	1.0	91	70	130			
1,2-Dibromoethane		4.72	ug/L	1.0	94	70	130			
Dibromomethane		4.96	ug/L	1.0	99	70	130			
1,2-Dichlorobenzene		4.32	ug/L	1.0	86	70	130			
1,4-Dichlorobenzene		4.28	ug/L	1.0	86	70	130			
trans-1,4-Dichloro-2-butene		3.50	ug/L	1.0	70	70	130			
Dichlorodifluoromethane		4.96	ug/L	1.0	99	70	130			
1,1-Dichloroethane		4.68	ug/L	1.0	94	70	130			
1,2-Dichloroethane		4.28	ug/L	1.0	86	70	130			
1,1-Dichloroethene		5.48	ug/L	1.0	110	80	120			
cis-1,2-Dichloroethene		4.44	ug/L	1.0	89	70	130			
trans-1,2-Dichloroethene		5.16	ug/L	1.0	103	70	130			
1,2-Dichloropropane		4.88	ug/L	1.0	98	80	120			
cis-1,3-Dichloropropene		5.48	ug/L	1.0	110	70	130			
trans-1,3-Dichloropropene		5.48	ug/L	1.0	110	70	130			
Ethylbenzene		5.40	ug/L	1.0	108	80	120			
2-Hexanone		56.0	ug/L	20	112	70	130			
Iodomethane		3.94	ug/L	1.0	79	70	130			
Methyl ethyl ketone		44.4	ug/L	20	89	70	130			
Methyl isobutyl ketone		56.0	ug/L	20	112	70	130			
Methylene chloride		4.28	ug/L	1.0	86	70	130			
Styrene		5.84	ug/L	1.0	117	70	130			
1,1,1,2-Tetrachloroethane		5.28	ug/L	1.0	106	70	130			
1,1,2,2-Tetrachloroethane		4.00	ug/L	1.0	80	70	130			
Tetrachloroethene		6.08	ug/L	1.0	122	70	130			
Toluene		5.76	ug/L	1.0	115	80	120			
1,1,1-Trichloroethane		5.00	ug/L	1.0	100	70	130			
1,1,2-Trichloroethane		5.08	ug/L	1.0	102	70	130			
Trichloroethene		5.16	ug/L	1.0	103	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/23/08
Work Order: H08090356

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B		Analytical Run: 1SATURN_080922A								
Sample ID: CCV092208D		53 Continuing Calibration Verification Standard								09/22/08 14:42
Trichlorofluoromethane		4.88	ug/L	1.0	98	70	130			
1,2,3-Trichloropropane		3.69	ug/L	1.0	74	70	130			
Vinyl acetate		4.40	ug/L	1.0	88	70	130			
Vinyl chloride		5.20	ug/L	1.0	104	80	120			
m+p-Xylenes		10.7	ug/L	1.0	107	70	130			
o-Xylene		5.84	ug/L	1.0	117	70	130			
Surr: 1,2-Dichloroethane-d4				1.0	88	70	130			
Surr: Dibromofluoromethane				1.0	100	70	130			
Surr: p-Bromofluorobenzene				1.0	87	70	130			
Surr: Toluene-d8				1.0	112	70	130			

Method: SW8260B		Batch: R48621								
Sample ID: LCS092208A		53 Laboratory Control Sample				Run: 1SATURN_080922A			09/22/08 15:21	
Acetone		49.2	ug/L	20	98	70	130			
Acrylonitrile		49.2	ug/L	20	98	70	130			
Benzene		5.76	ug/L	1.0	115	70	130			
Bromochloromethane		4.88	ug/L	1.0	98	70	130			
Bromodichloromethane		5.04	ug/L	1.0	101	70	130			
Bromoform		4.28	ug/L	1.0	86	70	130			
Bromomethane		4.72	ug/L	1.0	94	70	130			
Carbon disulfide		5.12	ug/L	1.0	102	70	130			
Carbon tetrachloride		5.12	ug/L	1.0	102	70	130			
Chlorobenzene		5.96	ug/L	1.0	119	70	130			
Chlorodibromomethane		5.00	ug/L	1.0	100	70	130			
Chloroethane		6.00	ug/L	1.0	120	70	130			
Chloroform		4.56	ug/L	1.0	91	70	130			
Chloromethane		5.68	ug/L	1.0	114	70	130			
1,2-Dibromo-3-chloropropane		4.52	ug/L	1.0	90	70	130			
1,2-Dibromoethane		5.36	ug/L	1.0	107	70	130			
Dibromomethane		5.04	ug/L	1.0	101	70	130			
1,2-Dichlorobenzene		4.68	ug/L	1.0	94	70	130			
1,4-Dichlorobenzene		4.56	ug/L	1.0	91	70	130			
trans-1,4-Dichloro-2-butene		3.54	ug/L	1.0	71	70	130			
Dichlorodifluoromethane		5.00	ug/L	1.0	100	70	130			
1,1-Dichloroethane		4.84	ug/L	1.0	97	70	130			
1,2-Dichloroethane		4.56	ug/L	1.0	91	70	130			
1,1-Dichloroethene		5.92	ug/L	1.0	118	70	130			
cis-1,2-Dichloroethene		4.72	ug/L	1.0	94	70	130			
trans-1,2-Dichloroethene		5.16	ug/L	1.0	103	70	130			
1,2-Dichloropropane		5.28	ug/L	1.0	106	70	130			
cis-1,3-Dichloropropene		5.72	ug/L	1.0	114	70	130			
trans-1,3-Dichloropropene		5.68	ug/L	1.0	114	70	130			
Ethylbenzene		5.72	ug/L	1.0	114	70	130			
2-Hexanone		60.8	ug/L	20	122	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/23/08
Work Order: H08090356

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48621
Sample ID: LCS092208A	53	Laboratory Control Sample			Run: 1SATURN_080922A				09/22/08 15:21	
Iodomethane		3.98	ug/L	1.0	80	70	130			
Methyl ethyl ketone		46.0	ug/L	20	92	70	130			
Methyl isobutyl ketone		59.2	ug/L	20	118	70	130			
Methylene chloride		4.48	ug/L	1.0	90	70	130			
Styrene		6.20	ug/L	1.0	124	70	130			
1,1,1,2-Tetrachloroethane		5.68	ug/L	1.0	114	70	130			
1,1,2,2-Tetrachloroethane		4.44	ug/L	1.0	89	70	130			
Tetrachloroethene		6.24	ug/L	1.0	125	70	130			
Toluene		6.00	ug/L	1.0	120	70	130			
1,1,1-Trichloroethane		5.44	ug/L	1.0	109	70	130			
1,1,2-Trichloroethane		5.64	ug/L	1.0	113	70	130			
Trichloroethene		5.60	ug/L	1.0	112	70	130			
Trichlorofluoromethane		4.92	ug/L	1.0	98	70	130			
1,2,3-Trichloropropane		3.64	ug/L	1.0	73	70	130			
Vinyl acetate		5.28	ug/L	1.0	106	70	130			
Vinyl chloride		5.24	ug/L	1.0	105	70	130			
m+p-Xylenes		11.4	ug/L	1.0	114	70	130			
o-Xylene		6.16	ug/L	1.0	123	70	130			
Surr: 1,2-Dichloroethane-d4				1.0	91	70	130			
Surr: Dibromofluoromethane				1.0	103	70	130			
Surr: p-Bromofluorobenzene				1.0	80	70	130			
Surr: Toluene-d8				1.0	111	70	130			
Sample ID: MBLK092208A	53	Method Blank			Run: 1SATURN_080922A				09/22/08 16:27	
Acetone		ND	ug/L	20						
Acrylonitrile		ND	ug/L	20						
Benzene		ND	ug/L	1.0						
Bromochloromethane		ND	ug/L	1.0						
Bromodichloromethane		ND	ug/L	1.0						
Bromoform		ND	ug/L	1.0						
Bromomethane		ND	ug/L	1.0						
Carbon disulfide		ND	ug/L	1.0						
Carbon tetrachloride		ND	ug/L	1.0						
Chlorobenzene		ND	ug/L	1.0						
Chlorodibromomethane		ND	ug/L	1.0						
Chloroethane		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane		ND	ug/L	1.0						
1,2-Dibromoethane		ND	ug/L	1.0						
Dibromomethane		ND	ug/L	1.0						
1,2-Dichlorobenzene		ND	ug/L	1.0						
1,4-Dichlorobenzene		ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene		ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/23/08
Work Order: H08090356

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48621
Sample ID: MBLK092208A	53	Method Blank				Run: 1SATURN_080922A				09/22/08 16:27
Dichlorodifluoromethane		ND	ug/L	1.0						
1,1-Dichloroethane		ND	ug/L	1.0						
1,2-Dichloroethane		ND	ug/L	1.0						
1,1-Dichloroethene		ND	ug/L	1.0						
cis-1,2-Dichloroethene		ND	ug/L	1.0						
trans-1,2-Dichloroethene		ND	ug/L	1.0						
1,2-Dichloropropane		ND	ug/L	1.0						
cis-1,3-Dichloropropene		ND	ug/L	1.0						
trans-1,3-Dichloropropene		ND	ug/L	1.0						
Ethylbenzene		ND	ug/L	1.0						
2-Hexanone		ND	ug/L	20						
Iodomethane		ND	ug/L	1.0						
Methyl ethyl ketone		ND	ug/L	20						
Methyl isobutyl ketone		ND	ug/L	20						
Methylene chloride		ND	ug/L	1.0						
Styrene		ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane		ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane		ND	ug/L	1.0						
Tetrachloroethene		ND	ug/L	1.0						
Toluene		ND	ug/L	1.0						
1,1,1-Trichloroethane		ND	ug/L	1.0						
1,1,2-Trichloroethane		ND	ug/L	1.0						
Trichloroethene		ND	ug/L	1.0						
Trichlorofluoromethane		ND	ug/L	1.0						
1,2,3-Trichloropropane		ND	ug/L	1.0						
Vinyl acetate		ND	ug/L	1.0						
Vinyl chloride		ND	ug/L	1.0						
m+p-Xylenes		ND	ug/L	1.0						
o-Xylene		ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4				1.0	94	70	130			
Surr: Dibromofluoromethane				1.0	99	70	130			
Surr: p-Bromofluorobenzene				1.0	82	70	130			
Surr: Toluene-d8				1.0	105	70	130			
Sample ID: H08090356-001AMS	53	Sample Matrix Spike				Run: 1SATURN_080922A				09/22/08 19:30
Acetone		109	ug/L	40	109	70	130			
Acrylonitrile		97.6	ug/L	40	98	70	130			
Benzene		12.4	ug/L	2.0	124	70	130			
Bromochloromethane		10.4	ug/L	2.0	104	70	130			
Bromodichloromethane		10.6	ug/L	2.0	106	70	130			
Bromoform		9.44	ug/L	2.0	94	70	130			
Bromomethane		9.36	ug/L	2.0	94	70	130			
Carbon disulfide		10.5	ug/L	2.0	105	70	130			
Carbon tetrachloride		10.3	ug/L	2.0	103	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/23/08
Work Order: H08090356

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48621
Sample ID: H08090356-001AMS	53	Sample Matrix Spike				Run: 1SATURN_080922A				09/22/08 19:30
Chlorobenzene		12.6	ug/L	2.0	126	70	130			
Chlorodibromomethane		10.5	ug/L	2.0	105	70	130			
Chloroethane		10.1	ug/L	2.0	101	70	130			
Chloroform		9.92	ug/L	2.0	97	70	130			
Chloromethane		9.84	ug/L	2.0	98	70	130			
1,2-Dibromo-3-chloropropane		9.52	ug/L	2.0	95	70	130			
1,2-Dibromoethane		11.6	ug/L	2.0	116	70	130			
Dibromomethane		11.0	ug/L	2.0	110	70	130			
1,2-Dichlorobenzene		10.1	ug/L	2.0	101	70	130			
1,4-Dichlorobenzene		9.92	ug/L	2.0	99	70	130			
trans-1,4-Dichloro-2-butene		7.87	ug/L	2.0	79	70	130			
Dichlorodifluoromethane		8.72	ug/L	2.0	87	70	130			
1,1-Dichloroethane		10.6	ug/L	2.0	106	70	130			
1,2-Dichloroethane		9.68	ug/L	2.0	97	70	130			
1,1-Dichloroethene		12.2	ug/L	2.0	122	70	130			
cis-1,2-Dichloroethene		10.6	ug/L	2.0	106	70	130			
trans-1,2-Dichloroethene		11.2	ug/L	2.0	112	70	130			
1,2-Dichloropropane		11.4	ug/L	2.0	114	70	130			
cis-1,3-Dichloropropene		12.1	ug/L	2.0	121	70	130			
trans-1,3-Dichloropropene		12.6	ug/L	2.0	126	70	130			
Ethylbenzene		12.1	ug/L	2.0	121	70	130			
2-Hexanone		125	ug/L	40	125	70	130			
Iodomethane		7.94	ug/L	2.0	79	70	130			
Methyl ethyl ketone		110	ug/L	40	110	70	130			
Methyl isobutyl ketone		119	ug/L	40	119	70	130			
Methylene chloride		10.0	ug/L	2.0	100	70	130			
Styrene		13.6	ug/L	2.0	136	70	130			S
1,1,1,2-Tetrachloroethane		12.2	ug/L	2.0	122	70	130			
1,1,2,2-Tetrachloroethane		9.92	ug/L	2.0	99	70	130			
Tetrachloroethene		13.6	ug/L	2.0	134	70	130			S
Toluene		12.6	ug/L	2.0	126	70	130			
1,1,1-Trichloroethane		10.6	ug/L	2.0	106	70	130			
1,1,2-Trichloroethane		12.1	ug/L	2.0	121	70	130			
Trichloroethene		11.5	ug/L	2.0	115	70	130			
Trichlorofluoromethane		8.72	ug/L	2.0	87	70	130			
1,2,3-Trichloropropane		9.36	ug/L	2.0	94	70	130			
Vinyl acetate		9.68	ug/L	2.0	97	70	130			
Vinyl chloride		9.36	ug/L	2.0	94	70	130			
m+p-Xylenes		23.6	ug/L	2.0	118	70	130			
o-Xylene		13.1	ug/L	2.0	131	70	130			S
Surr: 1,2-Dichloroethane-d4				2.0	93	70	130			
Surr: Dibromofluoromethane				2.0	104	70	130			
Surr: p-Bromofluorobenzene				2.0	82	70	130			

Qualifiers:

RL - Analyte reporting limit.
S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/23/08
Work Order: H08090356

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R48621
Sample ID: H08090356-001AMS 53 Sample Matrix Spike										Run: 1SATURN_080922A 09/22/08 19:30
Surr: Toluene-d8				2.0	112	70	130			
Sample ID: H08090356-001AMSD 53 Sample Matrix Spike Duplicate										Run: 1SATURN_080922A 09/22/08 20:00
Acetone		106	ug/L	40	106	70	130	2.2	20	
Acrylonitrile		97.6	ug/L	40	98	70	130	0	20	
Benzene		12.6	ug/L	2.0	126	70	130	1.3	20	
Bromochloromethane		10.6	ug/L	2.0	106	70	130	1.5	20	
Bromodichloromethane		11.2	ug/L	2.0	112	70	130	5.9	20	
Bromoform		10.2	ug/L	2.0	102	70	130	8.1	20	
Bromomethane		10.2	ug/L	2.0	102	70	130	8.2	20	
Carbon disulfide		10.6	ug/L	2.0	106	70	130	0.8	20	
Carbon tetrachloride		11.3	ug/L	2.0	113	70	130	8.9	20	
Chlorobenzene		13.2	ug/L	2.0	132	70	130	5	20	S
Chlorodibromomethane		10.5	ug/L	2.0	105	70	130	0	20	
Chloroethane		11.0	ug/L	2.0	110	70	130	8.4	20	
Chloroform		9.84	ug/L	2.0	96	70	130	0.8	20	
Chloromethane		10.6	ug/L	2.0	106	70	130	7.1	20	
1,2-Dibromo-3-chloropropane		11.4	ug/L	2.0	114	70	130	18	20	
1,2-Dibromoethane		11.7	ug/L	2.0	117	70	130	0.7	20	
Dibromomethane		11.8	ug/L	2.0	118	70	130	7.7	20	
1,2-Dichlorobenzene		10.3	ug/L	2.0	103	70	130	2.4	20	
1,4-Dichlorobenzene		11.0	ug/L	2.0	110	70	130	11	20	
trans-1,4-Dichloro-2-butene		8.48	ug/L	2.0	85	70	130	7.4	20	
Dichlorodifluoromethane		9.52	ug/L	2.0	95	70	130	8.8	20	
1,1-Dichloroethane		10.6	ug/L	2.0	106	70	130	0.8	20	
1,2-Dichloroethane		10.3	ug/L	2.0	103	70	130	6.4	20	
1,1-Dichloroethene		12.4	ug/L	2.0	124	70	130	1.3	20	
cis-1,2-Dichloroethene		10.5	ug/L	2.0	105	70	130	0.8	20	
trans-1,2-Dichloroethene		11.6	ug/L	2.0	116	70	130	3.5	20	
1,2-Dichloropropane		12.2	ug/L	2.0	122	70	130	7.5	20	
cis-1,3-Dichloropropene		13.3	ug/L	2.0	133	70	130	9.5	20	S
trans-1,3-Dichloropropene		13.1	ug/L	2.0	131	70	130	4.4	20	S
Ethylbenzene		12.9	ug/L	2.0	129	70	130	6.4	20	
2-Hexanone		138	ug/L	40	138	70	130	10	20	S
Iodomethane		8.40	ug/L	2.0	84	70	130	5.7	20	
Methyl ethyl ketone		107	ug/L	40	107	70	130	2.2	20	
Methyl isobutyl ketone		138	ug/L	40	138	70	130	14	20	S
Methylene chloride		9.92	ug/L	2.0	99	70	130	0.8	20	
Styrene		13.5	ug/L	2.0	135	70	130	0.6	20	S
1,1,1,2-Tetrachloroethane		12.6	ug/L	2.0	126	70	130	3.2	20	
1,1,2,2-Tetrachloroethane		9.68	ug/L	2.0	97	70	130	2.4	20	
Tetrachloroethene		14.3	ug/L	2.0	141	70	130	5.2	20	S
Toluene		13.6	ug/L	2.0	136	70	130	8	20	S
1,1,1-Trichloroethane		11.8	ug/L	2.0	118	70	130	11	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 09/23/08
Work Order: H08090356

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Sample ID: H08090356-001AMSD	53	Sample Matrix Spike Duplicate								
1,1,2-Trichloroethane		13.1	ug/L	2.0	131	70	130	8.3	20	S
Trichloroethene		12.4	ug/L	2.0	124	70	130	7.4	20	
Trichlorofluoromethane		9.60	ug/L	2.0	96	70	130	9.6	20	
1,2,3-Trichloropropane		9.12	ug/L	2.0	91	70	130	2.6	20	
Vinyl acetate		10.1	ug/L	2.0	101	70	130	4	20	
Vinyl chloride		10.0	ug/L	2.0	100	70	130	6.6	20	
m+p-Xylenes		25.6	ug/L	2.0	128	70	130	8.1	20	
o-Xylene		13.7	ug/L	2.0	137	70	130	4.2	20	S
Surr: 1,2-Dichloroethane-d4				2.0	92	70	130	0	20	
Surr: Dibromofluoromethane				2.0	101	70	130	0	20	
Surr: p-Bromofluorobenzene				2.0	83	70	130	0	20	
Surr: Toluene-d8				2.0	108	70	130	0	20	

Batch: R48621

Run: 1SATURN_080922A

09/22/08 20:00

Qualifiers:

RL - Analyte reporting limit.

S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.

3020 Bozeman Avenue • Helena, Montana 59601 • (406) 443-4150

Split Samples:
☐ Accepted ☐ Declined _____ Signature

Energy Laboratories Inc

Workorder Receipt Checklist



H08090356

Hydrometrics Inc

Login completed by: Roxanne L. Tubbs

Date and Time Received: 9/18/2008 3:40 PM

Reviewed by: SAU

Received by: rlt

Reviewed Date: 9-19-08

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	4.7°C		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None

<u>Site</u>	<u>Codette</u>	<u>Date</u>	<u>Time</u>	<u>Bottles / Freq / Amps / Is</u>
-------------	----------------	-------------	-------------	-----------------------------------

Springken	CHHL	10/15/08	10:00	2/40/0F/VOCHHL
-----------	------	----------	-------	----------------

0810-

100

Comments

Pumps off for Winter No Sample

weather

Calm, Partly Cloudy, 50°F

Readings	Nr	Flow	Totalizers
----------	----	------	------------

44-3	3962.0	33	68 4033
------	--------	----	---------

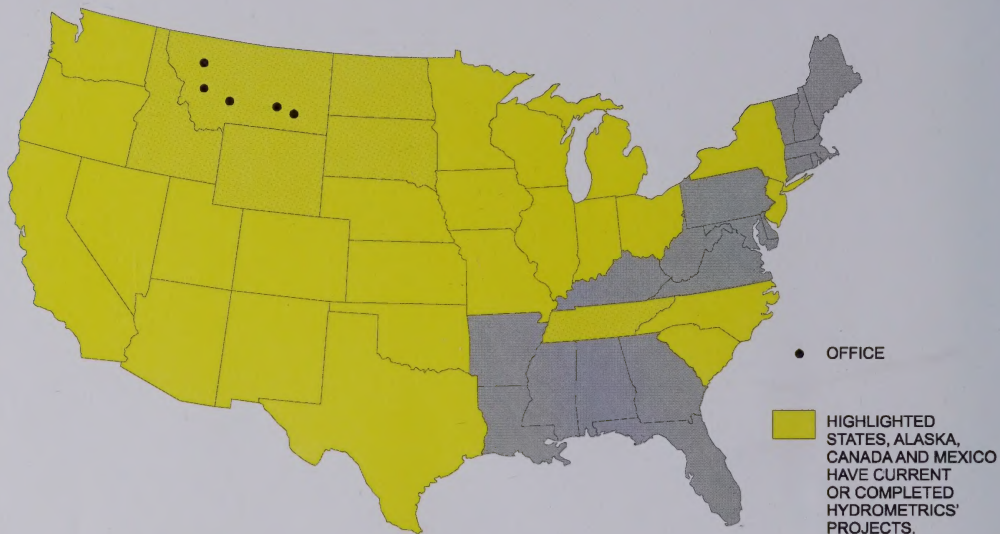
684022

99-2	3124.5	19.2	745907
------	--------	------	--------

144668

99-1	3962.6	5.75	272046
------	--------	------	--------

726460



HYDROMETRICS, INC. MONTANA OFFICES

HELENA (Corporate)
3020 Bozeman Avenue
Helena, MT 59601
Phone: (406) 443-4150
FAX: (406) 443-4155

BILLINGS
5602 Hesper Road
Billings, MT 59106
Phone: (406) 656-1172
FAX: (406) 656-8912

MISSOULA
667 East Beckwith
Missoula, MT 59801
Phone: (406) 721-8243
FAX: (406) 542-2619

COLSTRIP
Phone: (406) 656-8305
Fax: (406) 656-8912

KALISPELL
300 Learn Lane
Kalispell, MT 59901
Phone: (406) 471-8635